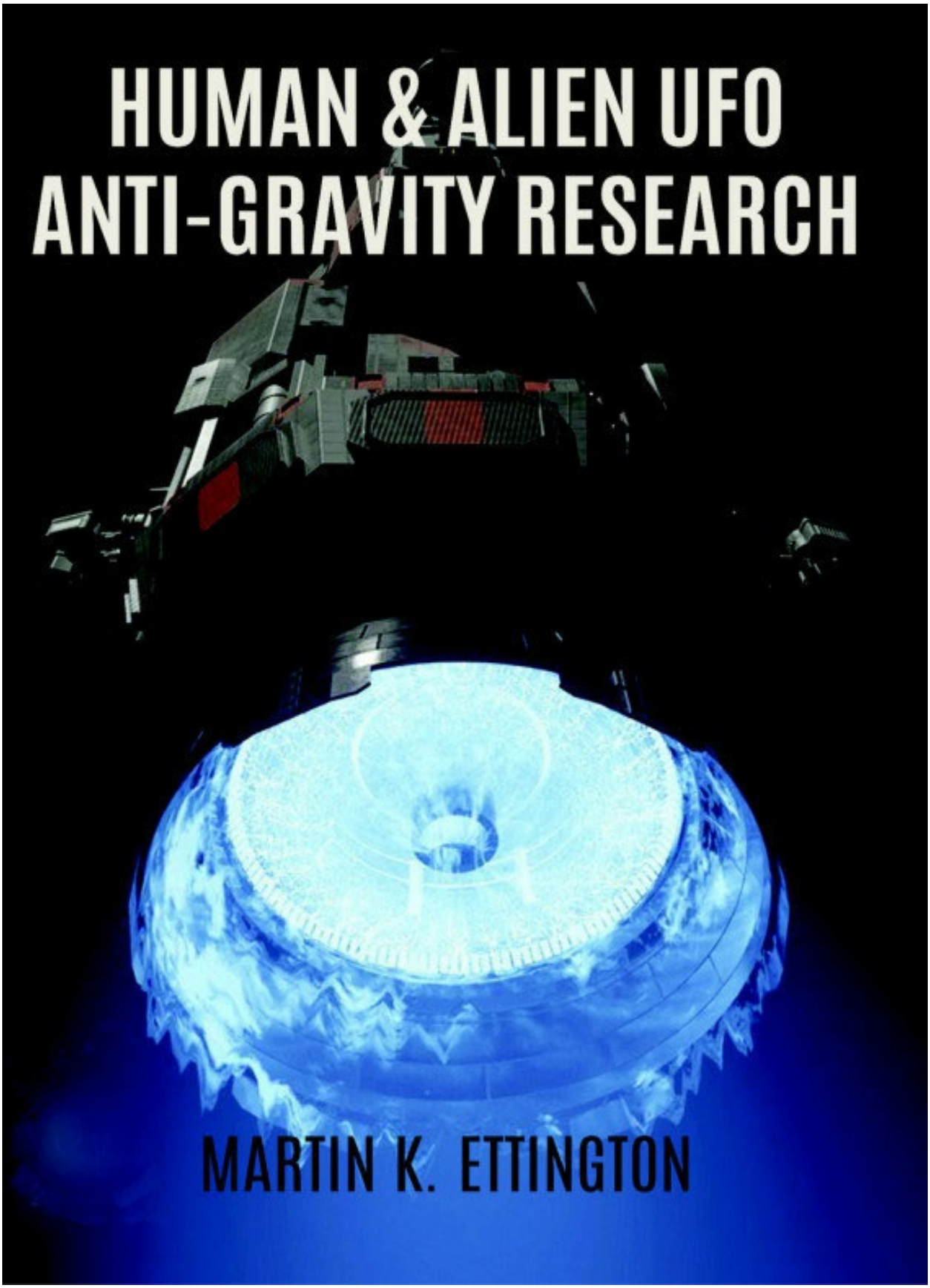
HUMAN & ALIEN UFO ANTI-GRAVITY RESEARCH



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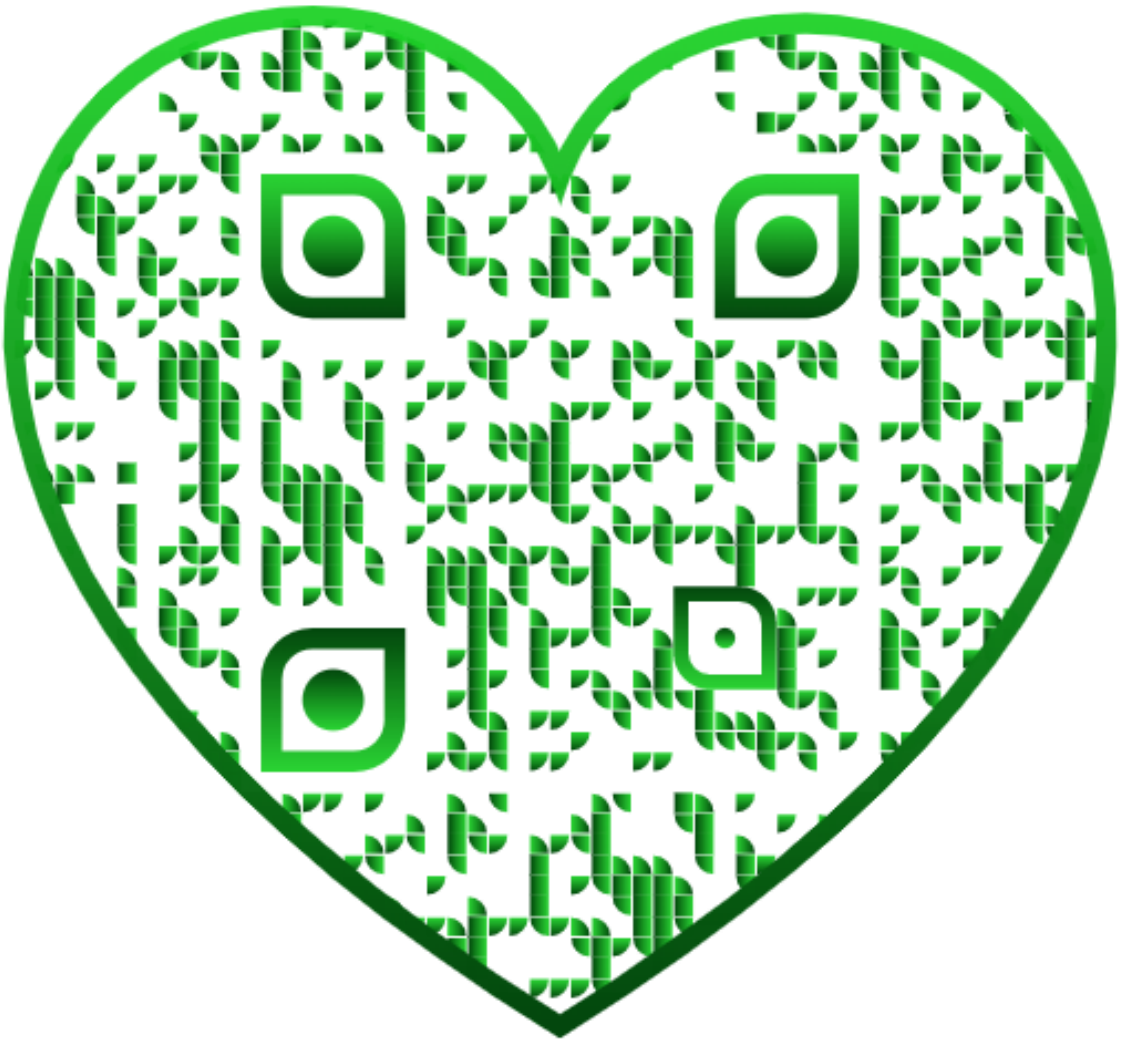

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1.0 Introduction

The discussions about real possibilities of practical anti-gravity technology usage are numerous. In this book I’ve tried to cover the most relevant articles and stories without diverging into stories about UFOs in general.

What is the history of anti-gravity research? And what other Alien technologies might have also become part of our knowledgebase?

Mainstream newspapers, popular magazines, technical journals, and declassified papers reported the existence of the gravity control propulsion research. For example, the title of the March 1956 Aero Digest article about the intensified interest was "Anti-gravity Booming." A. V. Cleaver made the following statement about the programs in his article:

What are the facts, insofar as they are publicly known, or (as at this date) knowable? Well, they seem to amount to this: The Americans have decided to look into the old science-fictional dream of gravity control, or "anti-gravity," to investigate, both theoretically and (if possible) practically the fundamental nature of gravitational fields and their relationship to electromagnetic and other phenomena – and someone (unknown to the present writer) has apparently decided to call all this study by the high-sounding name of "electro-gravitics." Unknown, too – at least unannounced – is the name of agency or individual who decided to encourage, stimulate, or sponsor this effort, also in just what way it is being done. However, that the effort is in progress there can be little doubt, and, of course, it is entirely to be welcomed.

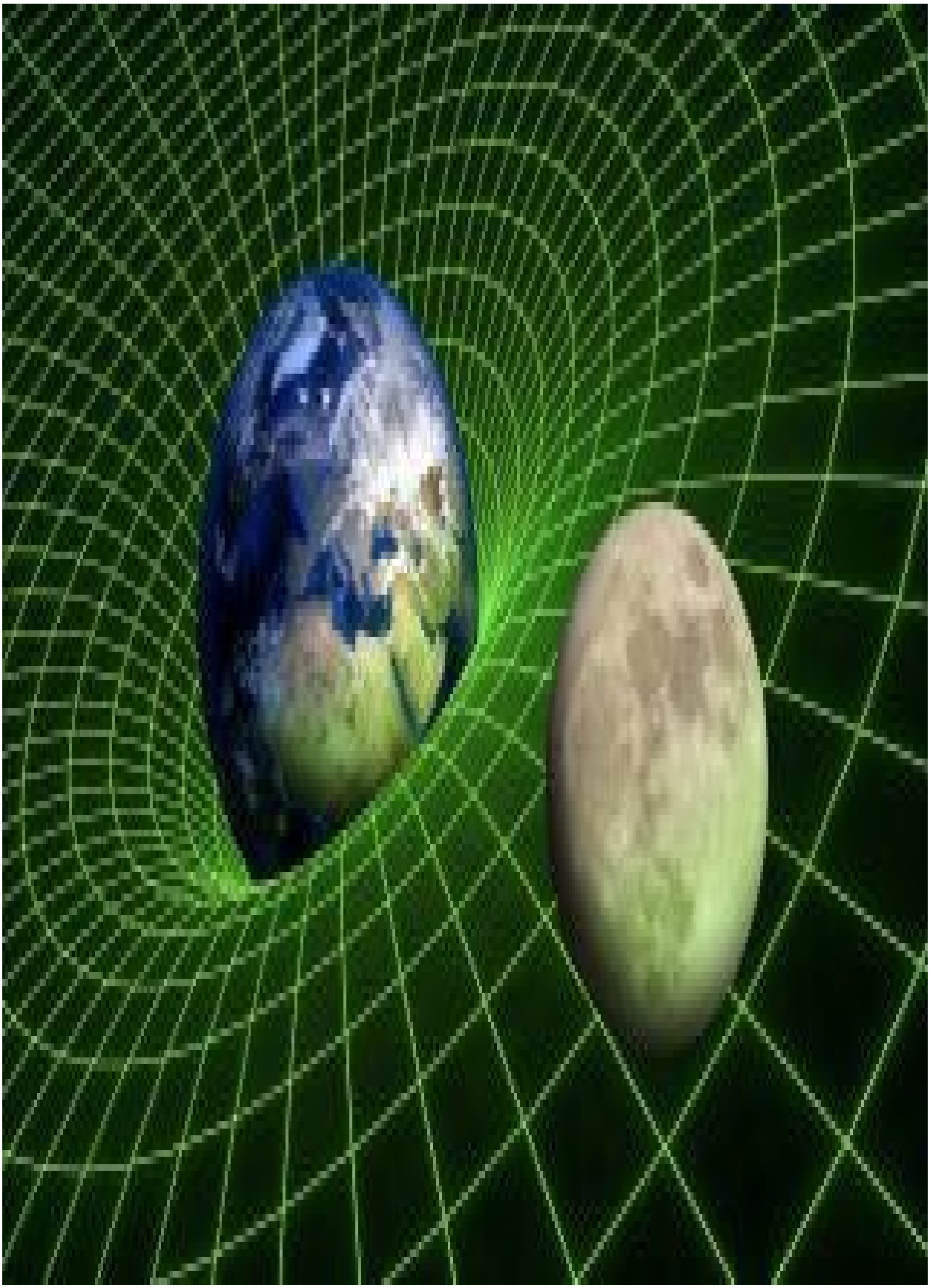
The gravitics programs had not been evinced by any technological artifacts, such as the Project Pluto Tory IIA, the world's first nuclear ramjet. Commemorative monuments by the Gravity Research Foundation have been the artifacts attesting to the early commitments to finding materials and methods to manipulate gravity. The endeavor had the resources and publicity of an initiative, but writers from that period did not describe them with that term. Gladych stated:

At least 14 United States universities and other research centers are hard at work cracking the gravity barrier. And backing the basic research with multi-million dollar secret projects is our aircraft industry.

The writings about the gravity control propulsion research effort had disclosed the "players" and resources while prudently withholding both the specific features of the research and the identity of its coordinating body. Publicized and telecasted conspiracy theory anecdotes have suggested much higher levels of success to the G-projects than mainstream science.

2.0 What is Gravity?

We need to understand what gravity is to talk about anti-gravity. Gravity is still a mystery in many ways.



While gravity's effects can clearly be seen on the scale of things like planets, stars and galaxies, the force of gravity between everyday objects is extremely difficult to measure.

Gravity is one of the four fundamental forces in the universe, alongside electromagnetism and the strong and weak nuclear forces. Despite being all-pervasive and important for keeping our feet from flying off the Earth, gravity remains, in large part, a puzzle to scientists.

Ancient scholars trying to describe the world came up with their own explanations for why things fall toward the ground. The Greek philosopher Aristotle maintained that objects have a natural tendency to move toward the center of the universe, which he believed to be the middle of the Earth, according to physicist Richard Fitzpatrick from the University of Texas.

But later luminaries dislodged our planet from its primary position in the cosmos. The Polish polymath Nicolas Copernicus realized that the paths of the planets in the sky make much more sense if the sun is the center of the solar system. The British mathematician and physicist Isaac Newton extended Copernicus’ insights and reasoned that, as the sun tugs on the planets, all objects exert a force of attraction on one another.

In his famous 1687 treatise "Philosophiae naturalis principia mathematica" Newton described what is now called his law of universal gravitation. It is usually written as:

$$Fg = G (m1 \cdot m2) / r2$$

Where F is the force of gravity, m1 and m2 are the masses of two objects and r is the distance between them. G, the gravitational constant, is a fundamental constant whose value has to be discovered through experiment.

Newton's Law of Universal Gravitation says that the force of gravity is directly proportional to the product of their masses and inversely proportional to the square of the distance between them.

Gravity is powerful, but not that powerful

Gravity is the weakest of the fundamental forces. A bar magnet will electromagnetically pull a paper clip upward, overcoming the gravitational force of the entire Earth on the piece of office equipment. Physicists have calculated that gravity is 10^40 (that’s the number 1 followed by 40 zeros) times weaker than electromagnetism, according to PBS’s Nova.

While gravity's effects can clearly be seen on the scale of things like planets, stars and galaxies, the force of gravity between everyday objects is extremely difficult to measure. In 1798, British physicist Henry Cavendish conducted one of the world’s first high precision experiments to try to precisely

determine the value of G, the gravitational constant, as reported in the Proceedings of the National Academy of Science's Front Matter.

Cavendish built what’s known as a torsion balance, attaching two small lead balls to the ends of a beam suspended horizontally by a thin wire. Near each of the small balls, he placed a large, spherical lead weight. The small lead balls were gravitationally attracted to the heavy lead weights, causing the wire to twist just a tiny bit and allowing him to calculate G.

Remarkably, Cavendish’s estimation for G was only 1% off from its modern-day accepted value of 6.674 × 10^−11 m^3/kg^1 * s^2. Most other universal constants are known to far higher precision but because gravity is so weak, scientists must design incredibly sensitive equipment to try to measure its effects. Thus far, a more precise value of G has eluded their instrumentation.

The German-American physicist Albert Einstein brought about the next revolution in our understanding of gravity. His theory of general relativity showed that gravity arises from the curvature of space-time, meaning that even rays of light, which must follow this curvature, are bent by extremely massive objects.

Einstein’s theories were used to speculate about the existence of black holes — celestial entities with so much mass that not even light can escape from their surfaces. In the vicinity of a black hole, Newton’s law of universal gravitation no longer accurately describes how objects move, but rather Einstein’s tensor field equations take precedence.

Astronomers have since discovered real-life black holes out in space, even managing to snap a detailed photo of the colossal one that lives at the center of our galaxy. Other telescopes have seen black holes' effects all over the universe.

The application of Newton's gravitational law to extremely light objects, like people, cells and atoms, remains a bit of an unstudied frontier, according to Minute Physics. Researchers assume that such entities attract one another using the same gravitational rules as planets and stars, but because gravity is so weak, it is difficult to know for sure.

Perhaps, atoms attract one another gravitationally at a rate of one over their distance cubed instead of squared — our current instruments have no way of telling. Novel hidden aspects of reality might be accessible if only we could measure such minute gravitational forces.

A perpetual force of mystery

Gravity perplexes scientists in other ways, too. The Standard Model of particle physics, which describes the actions of almost all known particles and forces, leaves out gravity. While light is carried by a particle called a photon, physicists have no idea if there is an equivalent particle for gravity, which would be called a graviton.

Bringing gravity together in a theoretical framework with quantum mechanics, the other major discovery of the 20th-century physics community, remains an unfinished task. Such a theory of everything, as it's known, might never be realized.

But gravity has still been used to uncover monumental findings. In the 1960s and 70s, astronomers Vera Rubin and Kent Ford showed that stars at the edges of galaxies were orbiting faster than should be possible. It was almost as if some unseen mass was tugging on them gravitationally, bringing to light a material that we now call dark matter.

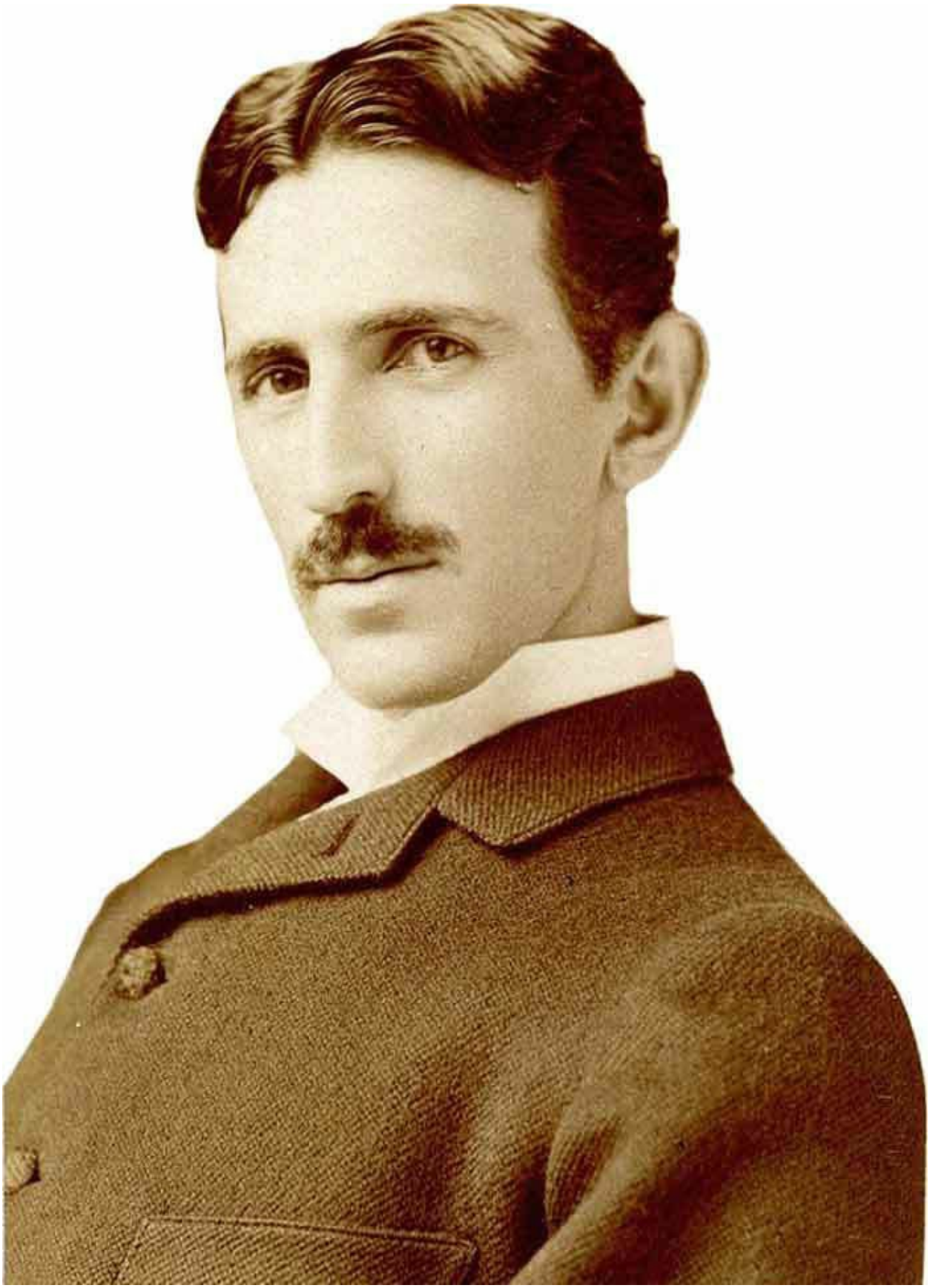
In recent years, scientists have also managed to capture another consequence of Einstein's relativity — gravitational waves emitted when massive objects like neutron stars and black holes rotate around one another.

Since 2017, the Laser Interferometer Gravitational-Wave Observatory (LIGO) has opened up a new window to the universe by detecting the exceedingly faint signal of such events.

3.0 Anti-Gravity Research

Many people—some famous and some unknowns have done lots of research on anti-gravity. This research goes back to over 100 years old.

3.1 Nicola Tesla and Anti-Gravity



It is of no surprise that Tesla also delved into the world of flight and possibly, antigravity. In fact, his last patent in 1928 (#6,555,114), was for a flying machine that resembled both a helicopter and an airplane.

Before he died, Tesla reportedly devised plans for the engine of a spaceship. He called it the antielectromagnetic

field drive or Space Drive.

William R. Lyne writes in Occult Ether Physics (Creatopia Productions), that a lecture Tesla prepared for the

Institute of Immigrant Welfare (May. 12, 1938), dealt with his Dynamic Theory of Gravity. Tesla said in his

lecture that this was: “One of two far reaching discoveries, which I worked out in all details in the years 1893 and

1894.”

While researching Tesla’s statements, Lyne discovered that more complete statements concerning these

discoveries could only be gleaned from scattered and sparse sources, because Tesla’s papers are concealed in

government vaults for national security reasons. When Lyne specifically asked for these papers at the National

Security Research Center (now the Robert J. Oppenheimer Research Center) in 1979, he was denied access because they were still classified.

In his 1938 lecture, Tesla said he was progressing with the work, and hoped to give the theory to the world very

soon.

Discoveries

The two great discoveries to which Tesla referred, were :

1. The Dynamic Theory of Gravity

Which assumed a field of force which accounts for the motions of bodies in space.

Assumption of this field of force dispenses with the concept of space curvature (ala Einstein); the ether has an

indispensable function in the phenomena (of universal gravity, inertia, momentum, and movement of heavenly

bodies, as well as all atomic and molecular matter).

2. Environmental Energy

The Discovery of a new physical Truth: there is no energy in matter other than that received from the

environment. (Which goes against Einstein's E=mc2).

The usual Tesla birthday announcement – on his 79th birthday (1935) – Tesla made a brief reference to the

theory saying it applies to molecules and atoms as well as to the largest heavenly bodies, and to "… all matter in

the universe in any phase of its existence from its very formation to its ultimate disintegration".

In an article, Man's Greatest Achievement , Tesla outlined his Dynamic Theory of Gravity by saying that the

luminiferous ether fills all space. The ether is acted upon by the life-giving creative force and is thrown into

"infinitesimal whirls" ("micro helices") at near the speed of light, becoming ponderable matter. When the force

subsides and motion ceases, matter reverts to the ether (a form of "atomic decay").

Man can harness these processes to: Precipitate matter from the ether. Create whatever he wants with the matter

and energy derived. Alter the earth's size. Control earth's seasons (weather control). Guide earth's path through

the Universe, like a spaceship. Cause the collisions of planets to produce new suns and stars, heat, and light.

Originate and develop life in infinite forms.

When Tesla was 82, instead of speaking at a dinner party, he issued a written statement. Although this was soon

after he had been struck by a car, his mind was obviously still capable of mounting an attack on Einstein's theory

of relativity:

"I have worked out a dynamic theory of gravity in all details and hope to give this to the world very soon."

It explains the causes of this force and the motions of heavenly bodies under its influence so satisfactorily that it

will put an end to idle speculations and false conceptions, as that of curved space.

According to the relativists, space has a tendency to curvature owing to an inherent property or presence of

celestial bodies. ”Granting a semblance of reality to this fantastic idea, it is still very self-contradictory. Every

action is accompanied by an equivalent reaction and the effects of the latter are directly opposite to those of the

former. Supposing that the bodies act upon the surrounding space causing curvature of the same, it appears to my simple mind that the curved spaces must react on the bodies and, producing the opposite effects, straighten out the curves.

“Since action and reaction are coexistent, it follows that the supposed curvature of space is entirely impossible –

However, even if it existed it would not explain the motions of the bodies as observed. Only the existence of a field

of force can account for them and its assumption dispenses with space curvature. All literature on this subject is futile and destined to oblivion.”

It is a great pity that Tesla never published his dynamic theory of gravity.

Modern thinking about gravity suggests that when a heavy object moves it emits gravitational waves that radiate

at the speed of light. These gravity waves behave in similar ways to many other types of waves. Tesla’s greatest

inventions were all based on the study of waves. He always considered sound, light, heat, X-rays and radio waves to be related phenomena that could be studied using the same sort of maths.

His differences with Einstein suggest that he had extended this thinking to gravity.

In the 1980s he was proved to be right. A study of energy loss in a double neutron star pulsar called PSR 1913 +

16 proved that gravity waves exist. Tesla's idea that gravity is a field effect is now taken more seriously than

Einstein took it.

Unfortunately, Tesla never revealed what had led him to this conclusion.

He never explained his theory of gravitation to the world. The attack he made on Einstein's work was considered

outrageous by the scientific establishment of the time, and only now do we have enough understanding of gravity

to realize that he was right.

3.2 Crystalline Lattices

Here is some research on the anti-gravity properties of Crystalline Lattices:

In the summer of 1927, two scientists, Kowsky and Frost, in Poland noted specific anti-gravity properties of crystals. They were pursuing some discoveries in piezo-electricity made by Meissner of Telefunken, whereby it was found that crystals could lose their transparency and change their specific gravity at the same time. By the oscillations of radio transmitters of several kilowatts, at protracted exposure, Kowsky and Frost managed to include an eight hundred percent volume increase to a clear crystal.

The small, lightened crystal carried the apparatus which oscillated it as well as a weight of twenty five kilograms suspended from it, floating free at a height of about two meters above the floor of a laboratory. Shortly after this discovery, reports and photographs of the tests were published in the German journal, Radio Umschau and in Science and Invention (September, 1927 issue). Those published reports permit a definition of the phenomena in today's terminology.

An optical grade quartz crystal 5x2x1.5 mm of defined crystal lattice was piezoelectrically overloaded with a resulting opaqueness, a growth in volume and a structural change along with specific gravity change. The crystal was reported to increase dimensions along one side of two thousand percent (volume increase of 800%). Its weight of approximately one ounce was reduced by an unknown amount during the increase in volume. When electrically excited to lift itself, the crystal was capable also of lifting an additional eight hundred and eighty ounces. This lift occurred when the crystal was subjected to vertical oscillation via direct electrode contacts, and

transverse oscillation via non-attached electrodes broadcasting radiation with the crystal interposed between them.

3.3 Thomas Townsend Brown

In 1921 while experimenting in the lab his parents had set up for him while he was still in high school, Brown discovered an unusual effect while experimenting with a Coolidge tube, a type of X-ray vacuum tube with two asymmetrical electrodes. Placing it on a balance scale with the tube's positive electrode facing up, when the power was on the tube's mass seemed to decrease. When the tube's electrode was facing down the tube's mass seemed to increase. Brown was convinced that he had managed to influence gravity electrically.

At Caltech in 1923 Brown tried to convince his instructors about his theories via inviting them to his home laboratory, but they showed little interest. He also invited the press and the May 26, 1924 edition Los Angeles Evening Express ran a story on Brown titled "Claims Gravity is a Push, not a Pull." After quitting Caltech Brown studied one year at Denison University where he claimed that he did a series of experiments with professor of astronomy Paul Alfred Biefeld although the present day Denison University claims they have no record of such experiments being carried out, or of any association between Brown and Biefeld.

Working in his home lab Brown developed an electrical device he called a "gravitor" or "gravitator", consisting of a block of insulating or dielectric material with electrodes at either end. He received a British patent for it in November 1928. In demonstrations Brown would mount the unit as a pendulum, apply electrical power, causing the unit to move in one direction. In 1929 Brown published "How I Control Gravity", in Science and Invention, where he claimed these devices were producing a mysterious force that interacted with the pull of gravity. He envisioned a future where, if his device could be scaled up, "Multi-impulse gravitators weighing hundreds of tons may propel the ocean liners of the future" or even "fantastic 'space cars'" to Mars.

Brown spent the rest of his life working in his spare time and sometimes in funded projects trying to prove his ideas on electricity's effect on gravity. He proposed his gravitator as a means of propulsion to General Motors executives in 1930 and as ship propulsion while he was at the Naval Research Laboratory in 1932. After World War II Brown sought to develop and sell his as a means of propulsion for aircraft and spacecraft. At some point the phenomenon was given the name "Electrogravitics" based on his belief this was an electricity/gravity phenomenon. At some point it also gained the moniker "Biefeld–Brown effect", probably coined by Brown to claim Biefeld as his mentor and co-experimenter.

Brown refined his invention over the years and eventually came up with designs consisting of metal plates or disks charged with 25,000 to 200,000 volts that would produce a propulsive force which he continued to claim was an anti-gravity force. Brown demonstrated a working apparatus to an audience of scientists and military officials in the US, England, and France. Research in the phenomenon was popular in the mid-1950s, at one point the Glenn L. Martin Company placed advertisements looking for scientists who were "interested in gravity", but rapidly declined in popularity thereafter (see United States gravity control propulsion research).

A physicist invited to observe Brown's disk device in the early 50s noted during the demonstration that its motivation force was the well-known phenomenon of "electric wind", and not anti-gravity, saying “I’m afraid these gentlemen played hooky from their high school physics classes….”Scientists who have since studied Brown's devices have not found any anti-gravity effect, and have attributed the noticed motive force to the more well understood phenomenon of ionic drift or "ion wind" from the air particles, some of which still remained even when Brown put his device inside a

vacuum chamber.

3.3.1 Electro Gravitics

Electrogravitics is claimed to be an unconventional type of effect or anti-gravity propulsion created by an electric field's effect on a mass. The name was coined in the 1920s by the discoverer of the effect, Thomas Townsend Brown, who spent most of his life trying to develop it and sell it as a propulsion system.

Through Brown's promotion of the idea it was researched for a short while by aerospace companies in the 1950s. Electrogravitics is popular with conspiracy theorists with claims that it is powering flying saucers and the B-2 Stealth Bomber.

Some people claim that the extremely high prices of the B-2 were because additional electrogravitic B-2s were produced for every one bomber seen by the public.

Since apparatus based on Browns' ideas have often yielded varying and highly controversial results when tested within controlled vacuum conditions, the effect observed has often been attributed to the ion drift or ion wind effect instead of anti-gravity. Brown also named this phenomenon the "Biefeld–Brown effect" after his claimed mentor, Denison University professor Paul Alfred Biefeld. A picture of Thomas Townsend Brown is below:

3.4 Nazi Anti-Gravity Research

The Nazi Bell is said to have been a top-secret craft commissioned by Hitler

The mysterious ‘Nazi Bell’ is said to have allowed the Third Reich to visit the Moon, Mars and even distant star systems by making use of an unexplainable, gravity-defying propulsion system, according to a conspiracy theory.

And a documentary has also suggested the anti-gravity technology, allegedly captured and tested by the United States after the war, was the ‘UFO’ people say they saw in the 1947 Roswell Incident.

Hitler is said to have ordered the development of the technology as part of a secret Nazi space program.

Winston Churchill ordered UFO inquiry but 'covered up results'

Was Hitler on the verge of using the Nazi Bell to change history forever and if so, where is it now?

“The prize of the lot? A bell-shaped machine potentially capable of

destroying everything and everyone in its path or perhaps even altering time itself.

“But what happened to this secret Nazi project? Did it actually even exist?

“Was Hitler on the verge of using the Nazi Bell to change history forever and if so, where is it now?”

The Bell, known as ‘Die Glocke’ in German, is said to have been developed by a top team of scientists and engineers headed by SS General Hans Kammler.

The Nazi Bell is said to have the power to defy gravity and travel into space

Hans Kammler

Hans Kammler worked on Hitler's V-2 rocket program and is said to have made the Nazi Bell. Kammler also ran the Nazi’s secretive V-2 rocket program, the world’s first working long-range ballistic missile which was used to terrorize London in the late stages of the war.

A 2014 German documentary on the Nazi Bell claimed the craft was initially designed to serve as a stealth fighter to counter the air superiority of the Allies.

The finished ship was said to be bell-shaped, around three metres in diameter and constructed from a copper-colored material known as light metal, or ’leichtmetall’.

Powered by a mysterious red-hued fuel, which author Henry Stevens has claimed was red mercury, the flying saucer was reportedly capable of soaring from Earth.

The bell-shaped craft reportedly had the power to reach other star systems

After the Third Reich was defeated, the top-secret technology was allegedly captured by the US.

The documentary explored the possibility the 1947 Roswell Incident, which conspiracy theorists have insisted was an alien UFO cover up, was actually the crash of a Nazi-era flying saucer.

The US military has always insisted the incident in New Mexico was simply a crashed weather balloon.

3.5 The Hutchison Effect

Hutchison is considered by many to be a crank, but he has created some really interesting effects on matter including potential anti-gravity. See it for yourself:

Ice Cream being allegedly levitated by the Hutchison Effect

An inventor in Canada named John Hutchison is credited with one of science's most unusual and controversial discoveries. It is described as a "highly-anomalous electromagnetic effect which causes the jellification of metals, spontaneous levitation of common substances, and other effects." It is known as the Hutchison Effect, or the H-Effect for short.

What the H-Effect is purported to do is nothing short of extraordinary. It is said to cause objects to defy gravity, cause metal to spontaneously fracture, cause dissimilar materials to fuse (such as metal and wood), and other strange phenomena. Hutchison has captured the effect on video many times, and claims to have demonstrated it for scientists from U.S. Army intelligence. But the claims are mired in doubt because the effect is not reproducible, even by the discoverer himself.

Hutchison is a bit of an eccentric, conducting his experiments in his apartment using surplus Navy and Army electronic equipment. His living space is absolutely crowded with oscilloscopes, digital readouts, gauges, switches, lights, receiver dishes, chains, and all manner of hardware. His supporters often liken him to the brilliant scientist and inventor Nikola Tesla, and in fact it was during an attempt to reproduce one of Tesla's experiments that the H-Effect was said to have been accidentally discovered.

Hutchison's experiments utilized multiple electrical coils called Tesla coils, as well as a static electricity machine called a Van de Graaf generator. How these high-voltage devices work in concert to create the H-Effect is uncertain, but supporters believe that a hypothetical electromagnetic wave called a scalar wave allowed Hutchison's apparatus to tap an exotic energy called

zero-point energy.

Effects on Materials from the Hutchison Effect

Zero-point energy is the energy present at zero Kelvins, the temperature at which all activity in an atom supposedly ceases. It is also called vacuum energy because it is descriptive of the energy in a perfect vacuum, where no light or matter is present. In this state, random electromagnetic oscillations can still be observed, meaning that there is still some amount of energy present. Essentially, the concept of tapping zero-point energy assumes that the universe is saturated in a constant background energy which we cannot observe because it is present everywhere, even within ourselves and our measuring devices. If such energy exists, it could be an enormous amount… it is theorized that there is enough energy in the volume the size of a coffee cup to completely boil away Earth’s oceans.

John Hutchison in his apartment/laboratory

Much of the criticism of Hutchison's work stems from the shortage of impartial third-party observations, and by the fact that the H-Effect has not yet been reproduced elsewhere.

There are several demonstration videos supposedly showing the phenomena, including a few short videos online and some more involved footage which he sells by mail-order for up to $150. The online videos indeed feature close-up shots of objects which appear to be levitating and moving in strange ways, but many suspect that his levitation tricks are fakery.

One suggestion made by skeptics is that Hutchison uses an electromagnet on the ceiling, and places hidden pieces of metal inside objects so they will be attracted to the magnet. He could then film the objects with an upside-down camera as he powers down the electromagnet, making the objects on film appear to float up and out of the shot when in reality they are falling down to the floor. Many of the videos include conspicuous objects in the scene which do not move (such as an old broom), which could be deliberately attached to add to the illusion that the camera is not upside-down. Critics also point out that the videos do not show what happens to the objects after they levitate.

One particularly damning piece of evidence against him is a video he produced for a television special which shows a toy UFO levitating and jumping around wildly. A string is clearly visible in the upper left-hand corner of the video, wiggling in sync with the UFO's movements. At first Hutchison claimed that it was a wire which was part of the apparatus, but later he confessed that he was "creative" with the footage because he has been unable to reproduce the effect since 1991.

Given that Hutchison's claims are outlandish and his credibility damaged by admitted fakery, it is likely that the effect named for him is complete claptrap. Carl Sagan famously said that "extraordinary claims require extraordinary evidence," and Hutchison offers no such evidence aside from easily faked videos and unsubstantiated claims. But much valuable science has been done by eccentrics who are mocked by the rest of the scientific community in their time… so it is possible that his claims are indeed valid. Science is half skepticism and half open-mindedness.

3.6 Eugene Podkletnov’s Experiments

Dr, Podkletnov has been well known on the internet for almost 20 years due to the article about his rotating disk anti-gravity experiments. I remember when I was at Boeing that links to his articles were banned because so many employees spent time online reading them.

Eugene Podkletnov has a New Gravity Modification Experiment. Here is an interview with him which is reprinted here:

Thirty years ago, Dr. Eugene Podkletnov developed a gravitational shield using high-speed rotating superconductors. Now he's testing a new device that he claims will generate better results — and we've got the video he says proves it. We join him to learn more about the details of his experimental claims and learn how his latest design may produce a gravitational field capable of lifting heavy objects…

Eugene, thank you for joining us. You've got a new experimental video out that's raising a lot of big questions, so I want to touch on that — but let's start with what you're currently up to. Are you still working at the university in Tampere?

Yes. My current job is at Tampere University of Technology in Finland, teaching chemistry and material science. My work in the field of gravity research is a side project, something I've been doing for over 30 years now.

Dr. Eugene Podkletnov, research scientist at Tampere University of Technology

Some of that work I do here in Finland, some in Moscow, and I and recently completed some research in Czech Republic in Prague. I also have colleagues that I collaborate with in Italy, Canada, and the United Kingdom — such as Dr. Giovanni Modanese.

He is an outstanding scientist, and an excellent theoretical physicist, which has led to a great working relationship. I do experimental work for him and he does theoretical analysis for me, which is a good thing.

I want to touch on the new experimental video, which appears to be an experiment involving high speed disk? Is this similar to your original experiments rotating YBCO superconductors at high speeds, which purportedly created what was described as a gravitational shielding effect?

Yes. I'm continuing my work in this direction — but I'm not calling this effect gravitational shielding, but instead a modification of the local gravitational field. This comes from the work I began this work 30 years ago — learning how to use high-speed rotating objects with superconducting components to modify gravity.

What I’ve found, however, is that the superconductors are needed only to create a certain density of electrons, so in the experiments you seen in this video we’re working with very thin gold layers which generate the same effect at room temperature.

My latest research shows that working with composite materials that do not include superconductors at all, we’re able to create gravity fields, in vacuum, in the air, and so far in every object placed within the vicinity of this experimental gravity generator. It’s a much more efficient method.

An ion-implanation machine similar to the kind used by Podkletnov

Okay, originally you were working with superconductors, but you now believe that the electron density is what made the effect happen, and you've replaced the superconductor with a thin gold film on normal conductors? Using this design, how much force are you generating?

Yes, that's right, and without using superconductors, we are now creating these effects at normal room temperature. There is no need for cooling.

Well, I can only share some estimates. Currently, I think we can generate a lifting force of about 300 to 500 kilograms per square meter. I've tested these devices in vacuum conditions and they appear to generate the same force, which rules out atmospheric effects.

It also appears that this experiment can generate either a repulsive force or an attractive one, depending on the geometrical configuration of the experiment. That's why we're not using the term "gravity shield" anymore, it just isn't appropriate.

We're simply trying to explain the experimental results that we got, and based on what we've been able to achieve, we're describing it as a modification of the local gravitational field.

Do you think this would this work in space, for instance, where there’s no reaction mass to push against?

Well if it works in a vacuum, then perhaps it will work for space propulsion — but still you should understand that these are mechanical models, which use pretty heavy discs that are rotating at high speed.

For space travel, it would be better to try and find a way to create the effect using rotating magnetic fields rather than mechanical components, which is something I am considering.

A solid state device that isn’t limited by mechanical rotation can be scaled much more easily — maybe even to thousands of kilos per square meter, which would be a remarkable result. If that can be developed, it would definitely be suitable for space propulsion.

A still-frame from the video showing the disk, sample & retaining string in the vacuum chamber.

Now in the experimental video, it appears that there's an object suspended over the rotating disc on an armature that allows it to move up & down, and in one video you appear to have a restraining string to prevent it the object from scraping the rotating disk surface. Can you describe the actual experimental setup a little bit for me?

So we have a vacuum chamber. We have a disc which has special nano-coatings made with ion-implantation. The disc is rotating at this speed from 8,000 rotations per minute up to 12,000 rotations per minute, and at these speeds we have a lifting force that affects all of the samples we've tested, regardless of composition. We've tried using glass, plastic, metal, even vapor — they're all repelled from the surface of the disc.

The force we're seeing produces the lifting effect, and seems to encompass the space around the sample with what you might call an envelope of the effect. These forces are vector fields, so they can be applied in any direction in space. I've hypothesized that what may be happening is that the disc is creating a gravity well, which the sample is then falling into regardless of orientation.

From what you're saying, it sounds like the thin film ion-impregnated gold coating is what may be producing this effect then? Can you elaborate a bit

more on that for me?

Yes. The nano-coating of the disk consists a thin layer of gold, from 5 to 30 atoms thick, which is applied to the surface of an aluminum disk using a high-power ion-implantation device. I have experimented with various shapes for the coating as well as doping the coating with other elements, and settled on one consisting of concentric circles. I have experimented with doping the coating with other elements as well.

This is an embarrassing question because I'm sure you've taken it into account, but have you been able to firmly rule out experimental errors such as perhaps vibrations in the disk, the armature holding the sample, or maybe even an inductive effect that could be moving the armature?

Yes, it's a typical question that people ask. The samples that we use typically weigh from 30 to 50 grams, and using only vibration in the vacuum chamber, it's impossible to move these objects up to five to seven centimeters from the surface of the disc. So no, it's definitely not the vibration.

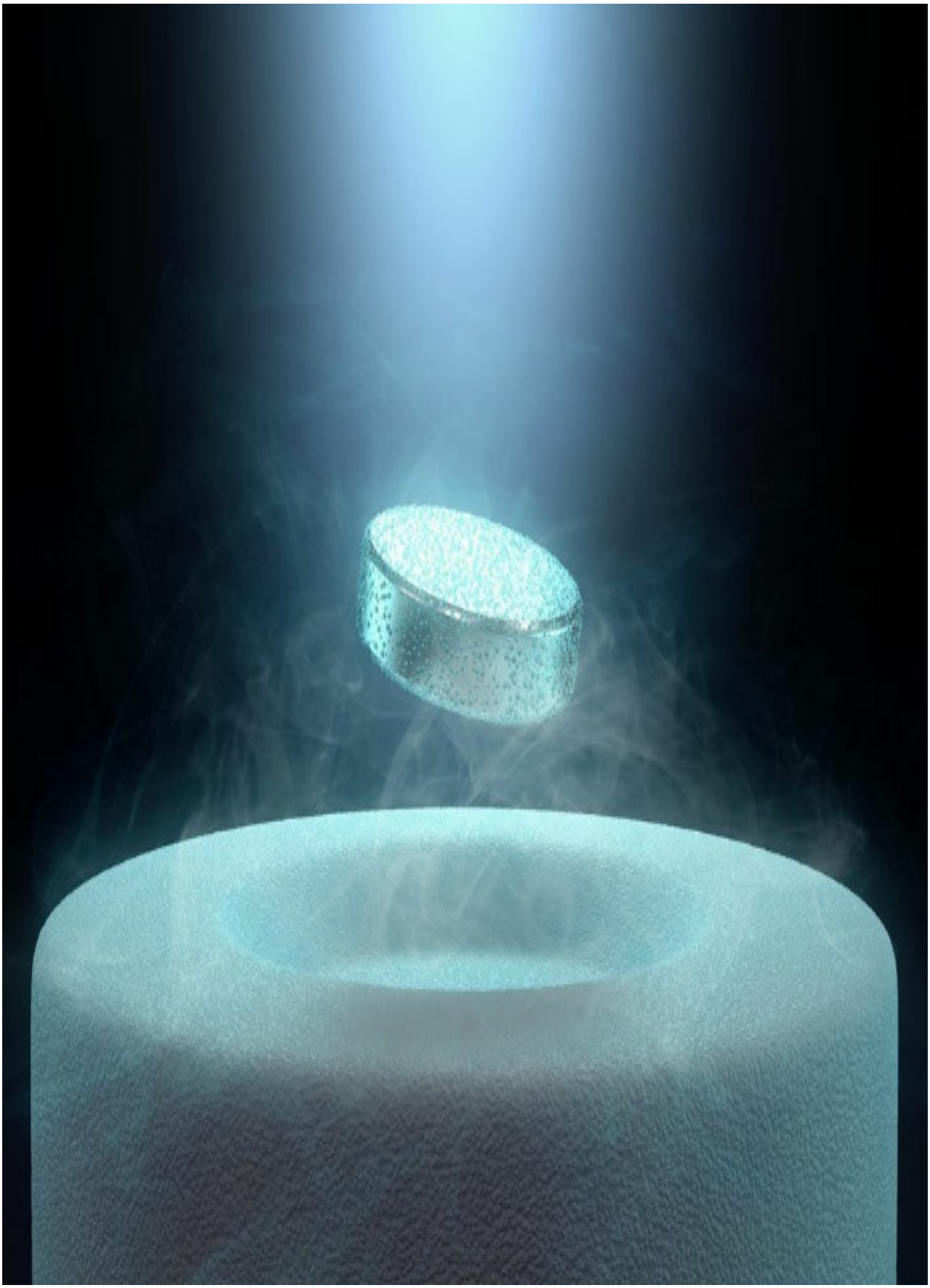
When we begin rotating the disk, at any speed lower than 8,000 rotations per minute, we see no effect or movement. Then, as we reach 8,000 rpm, we see the effect begin to appear. So this effect only appears at certain speed of rotation.

This experiment can be easily reproduced at any laboratory, so researchers who have a serious interest they can ask me for help and I will explain for them how to recreate it.

Speaking of replications, in terms of the failed NASA replication for the rotating-superconductor experiment, I'd heard from a NASA insider that they only spun it up to about 200rpm. Does that mean that they didn't fully complete your experiment?

I cringe every time I hear that NASA failed to replicate my experiment, because no, they didn't fail. They made their own disks, and they were big enough: about 12 inches in diameter. They published some initial test information indicating that they had definitely noticed some unusual effects.

Then I got involved in participating to helping them to replicate my experiments, and they practically had everything ready when they ran out of money. So at the last stage they were not able to rotate the superconductor in the magnetic field, and shortly after that the department of defense came in and grabbed all the experiments. All of this research was transferred to Dr. Ning Li — so now NASA has nothing, and we have nothing either.



YBCO levitation is easily explained, but Podkletnov claims superconductors can also modify gravity

From what I've read, the YBCO superconductors were hard to construct & often self-destructed at high speeds. Given the simpler design & construction of this new device, does this mean the end for your superconductor research?

It's important to understand that superconductors were extremely useful as model materials because they allowed us to create any configuration of the magnetic field that we wanted to — but being able to work without them using composite materials seems to give us practically the same effect or an even better effect than superconductors.

For the time being, we have come back to rotating disks, but we're using a composite structure now, and under certain conditions we're creating this gravitational modification. I also plan to begin working with rotating magnet fields, which are practically the same thing as a rotating body. But so, but in a, in a bit different way. So the mechanism is a bit different.

Let me close by asking whether you've noticed any other anomalous phenomenon other than the repulsive force you're demonstrating in the video clips?

Well, of course there are different phenomena that we can observe during our experiments. But frankly speaking, my focus at the moment is not in the scientific realm of categorizing anomalous effects — I am interested in the engineering work of maximizing the main propulsive effect to a usable level.

The reason for this is simple: the opportunities that this technology presents may greatly benefit humanity, and I would love to see this work develop towards a practical implementation for propulsion, perhaps to the point where we could use it to begin our travel to space and “boldly go” …you know the rest.

Dr. Eugene Podkletnov has a doctorate in materials science from Tampere University of Technology in Finland, and is a graduate of the University of Chemical Technology, Mendeleyev Institute in Moscow.

He has nearly two decades of experience at the Institute for High Temperatures in the Russian Academy of Sciences, and has authored a number of papers on experimental research on EM/gravitational coupling in superconductive materials.

3.7 US Navy Anti-Gravity Patent

There are literally hundreds of anti-gravity patents over the years. Of course we don’t know how many really work.

The US Navy has patented antigravity. Or as described by the inventors: inertial mass reduction device.

Patent No . : US 10,144,532 B2

Date of Patent : Dec . 4, 2018

The patent describes a device that uses a microwave emitter to create a high-frequency electromagnetic wave through a cavity to create a polarized vacuum. This polarized vacuum, in turn, reduces the mass of the vehicle containing the device.

A description of what this patent says can modify gravity follows:

It is possible to reduce the inertial mass and hence the gravitational mass, of a system/object in motion, by an abrupt perturbation of the non-linear

background of local spacetime (the local vacuum energy state), equivalent to an accelerated excursion far from thermodynamic equilibrium (analogous with symmetry-breaking induced by abrupt changes of state/phase transitions).

The physical mechanism which drives this diminution in inertial mass is based on the negative pressure (hence repulsive gravity) exhibited by the polarized local vacuum energy state (local vacuum polarization being achieved by a coupling of accelerated high frequency vibration with accelerated high frequency axial rotation of an electrically charged system/object) in the close proximity of the system/object in question. In other words, inertial mass reduction can be achieved via manipulation of quantum Held fluctuations in the local vacuum energy state, in the immediate proximity of the object/system.

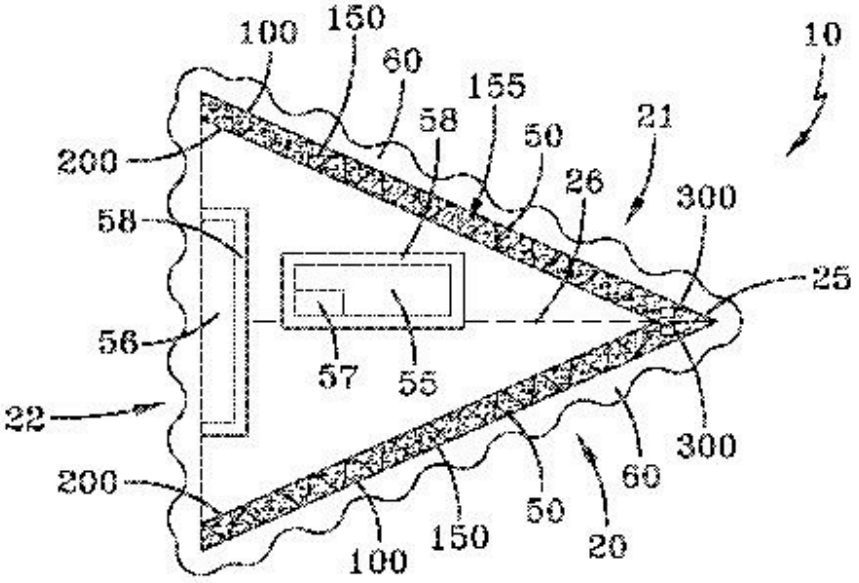
Therefore it is possible to reduce a crafts inertia, that is, its resistance to motion/acceleration by polarizing the vacuum ill the close proximity of the moving craft.

Polarization of the local vacuum is analogous to manipulation/modification of the local space tie topological lattice energy density. As a result, extreme speeds can be achieved.

If we can engineer the structure of the local quantum

vacuum state, we call engineer the fabric of our reality at the most fundamental level (thus affecting a physical systems inertial and gravitational

properties). This realization would greatly advance the fields of aerospace propulsion and power generation.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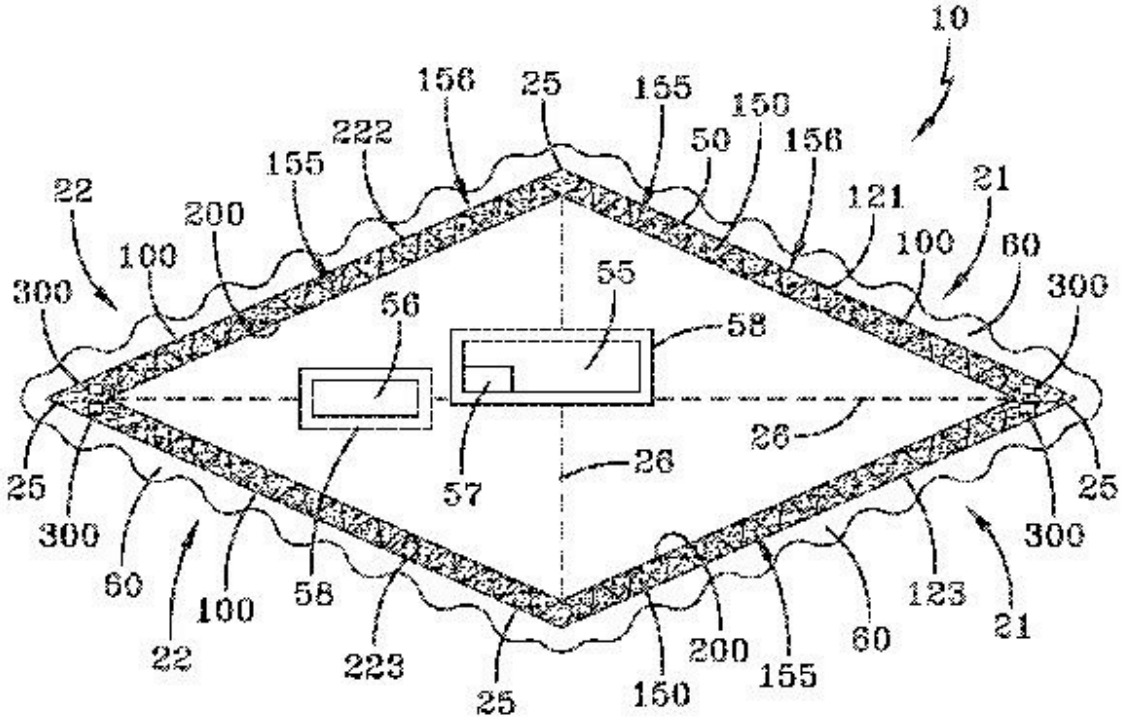
FIG–1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FIG–2

It seems that the inventors propose to use the properties of high energy electromagnetic field generator to interact strongly with the vacuum energy state. The system described seems, according to the authors, to generate quantum fields' fluctuations permeating the entire fabric of spacetime. Which in this case, the aim is to alter the material to create an antigravity field…

3.8 United States Research Historically

The truth is the Military has been researching “anti-gravity” for nearly 70 years. The following detailed article is really insightful into the US government’s anti-gravity research over time:

HOLLOW SPHERE
Cu
Electrostatic Sphere Cross Section
II-105
Conquest of Gravity Aim Of Top Scientists in U.S.
Inertia-Reducing or Thrust Producing Field Propulsion and Zero-Point Energy ction from the Quantum Vacuum
tenna/Aperture Array for Emission of Very ntense Field Energies
Nanotube Materials for Airframe Structure and Propulsion Components
WRIGHT
MARTIN U.S.A.
ANTI-GRAVITY RESEARCH—Dr. Charles T. Dozier, left, senior research engi and guided missiles expert of the Convair division of General Dynamics conducting a research experiment toward control of gravity with Martin Ka Convair senior electronics engineer.
ANTI-GRAVITATION AND AVIATION—George S. Trimble jr., vice-president in charge of advanced de-sign planning of Martin Aircraft Corp., left, discussing the application of anti-gravitational research to aviation with two Martin scientists, J. D. Pierson, center, and William B. Yates.
ADVANCED PROPULSION CONCEPTS – PROJECT OUTGROWTH
F.B. MEAD, JR., EDITOR
TECHNICAL REPORT AFRPL-TR-72-31
JUNE 1972
US AIR FORCE
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Decades-old questions about the potential existence of fantastical anti-gravity propulsion technologies have resurfaced following the Navy’s own disclosure of encounters with unidentified aerial phenomena and our own original reporting on a series of bizarre patents assigned to the U.S. Navy that seem to defy our current understanding of physics and aerospace propulsion.

While the discussion continues over whether any such technologies are feasible, the truth is that the theoretical concepts behind them are anything but new. In fact, the U.S. military and the federal government have been formally researching these radical concepts since the 1950s, and according to our own research, those efforts have continued on to this very day.

In our dive into what seems like something of a bottomless rabbit hole of government studies into this exotic scientific realm, we have collected a body of research, news reports, and firsthand accounts. These establish the fact that the types of "anti-gravity", propellantless propulsion, and mass reduction technologies described in the Navy’s recent "UFO" patents are at least based on more than 60 years of peer-reviewed research conducted and published by the likes of the American Institute of Physics, NASA, the American Institute of Aeronautics and Astronautics, and the Air Force Research Laboratory.

While we can't say that any of this research led to actually being able to harness "anti-gravity" or extremely advanced next-generation propulsion technologies to any useful extent, the most advanced laboratories under control of both the armed forces and the academic world have certainly been trying their best to get there for the better part of a century. Also, keep in mind that all of this information comes from unclassified sources, and there is

definitely more of it than just what is represented here. We can only wonder how much work has been done in the classified realm on what was once openly considered the next massive revolution in aerospace technology.

The Martin Company's Early Foray Into Anti-Gravity

In terms of the Air Force’s early anti-gravity research, one intriguing first-hand account comes from Dr. Louis Witten, who was a professor of physics at the University of Cincinnati from 1968 to 1991. Throughout his career, Witten conducted research into gravitation, quantum gravity, and general relativity. The last one of these is the theory first put forward by Albert Einstein that proposes that gravity is essentially a warp or curve in the geometry of space-time caused by mass.

During a roundtable discussion titled “Recollections of the Relativistic Astrophysics Revolution” held at the 27th Texas Symposium on Relativistic Astrophysics in 2013, Witten recounted his own work on what he somewhat puzzlingly refers to as "the discovery of anti-gravity."

In his portion of the roundtable, Witten recalls being recruited by George S. Trimble, then serving as Vice President for Aviation and Advanced Propulsion Systems at the Glenn L. Martin Company, which evolved first into Martin-Marietta and eventually merged with Lockheed in 1995 to form Lockheed Martin. The project for which Witten was recruited would come to be known as the Research Institute for Advanced Studies (RIAS) and was officially founded in 1955 by George Bunker, president of Martin, with the goal of advancing aerospace science and development.

"The vice president [Trimble] had the wonderful idea which was to develop anti-gravity," Witten says, noting he immediately balked at the proposal. "When he tried the idea in public, you can imagine the greeting he received from scientists. So he said to himself 'those poor bastards, I'll show them.'" Despite his skepticism, Witten ended up accepting Trimble's offer to join the powerful Martin executive's pet project.

Throughout his short speech given at the roundtable, Witten says that even though he faced ridicule within the scientific community for his research, there was no shortage of people who would tell him they knew how to achieve anti-gravity:

“Some of them were very simple ideas. The simple ideas are always hard to combat. Suppose somebody comes to you and says 'I have a rock of bismuth that demonstrates anti-gravity.' What do you do?

There was a Vice President of the Martin Company who brought that up, he said 'I read about a guy in Indiana who says a rock of bismuth…' I said 'It’s nonsense.' He said ‘How do you know it’s nonsense? How do you know there’s no isotope of bismuth that shows anti-gravity?' What do you say to that?”

Witten’s ends his speech by pointing out that despite the constant barrage of nonsense claims to investigate, "the power of a Vice President of a big company is so great that the reason there was a laboratory at Wright Field [today known Areas A and C of Wright Patterson Air Force Base] was to find out what we were doing and to help us do it and I got a contract from Wright

Field to do it - to do gravity. Which I did, very happily."

It’s unknown what, if anything, ever came of Witten’s research or the program's other related research. While we haven’t found a record of him at Wright Patterson to confirm his account, Witten did in fact publish several theoretical articles concerning general relativity throughout that period including “Invariants of General Relativity and the Classification of Spaces”, “Geometry of Gravitation and Electromagnetism”, and “Conformal Invariance in Physics”, all of which list Witten as an employee of the Research Institute for Advanced Studies established by Martin.

The anti-gravity work Witten claims to have conducted at RIAS on behalf of Martin is corroborated by a series of three articles written by aviation journalist Ansel Talbert and published in the New York Herald Tribune on November 20, 21, and 22, 1956. Talbert served as the aviation correspondent for the Herald Tribune from 1953 until the paper shut down in 1966, after which he wrote for various aviation magazines and trade publications.

THE WEATHER
Today: Partly cloudy, windy and cold; clearing in afternoon.
Tomorrow: Increasing cloudiness and warmer.
Temperature Yesterday: Max., 51; Min., 31
Tide's Probable Rises: Max., 20; Min., 12
Humidity at 1 p. m. Yesterday: 31%
Lowest Humidity This Afternoon: 31-19%
Reports, Maps, Sec. 1, Page 18

NEW YORK
Herald Tribune
European Edition Published Daily in Paris

Late City Edition
Section One

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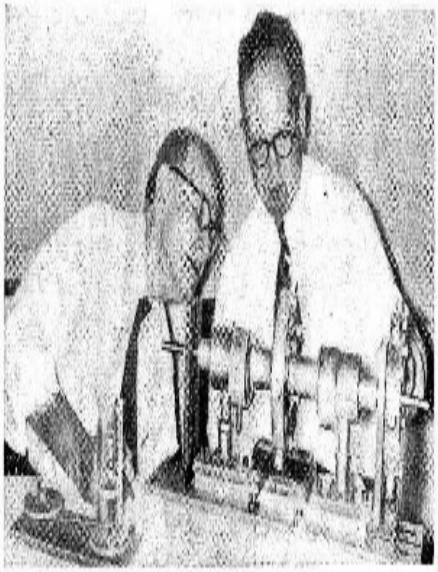
SUNDAY, NOVEMBER 20, 1955
© 1955, New York Herald Tribune Inc.
TWENTY-FIVE CENTS

Conquest of Gravity Aim Of Top Scientists in U. S.



ANTI-GRAVITY RESEARCH—Dr. Charles T. Duzier, left, senior research engineer and guided missiles expert of the Convair division of General Dynamics Corp., conducting a research experiment toward control of gravity with Martin Kaplan, Convair senior electronics engineer.

Changes Far Beyond Atom Are the Prize

Revolution in Power, Air, Transit Is Seen

This is the first of a series on new pure and applied research into the mysteries of gravity and efforts to devise ways to counteract it.

By Ansel E. Talbert

Military and Aviation Editor of the New York Herald Tribune Inc.

The initial steps of an almost incredible program to solve the secret of gravity and universal

Moroccan, Caliph Slain In Courtyard of Sultan

Attacked on Way to Make Peace With Youssef; Aid Also Is Killed

By Barrett McGurn

By Wireless to the Herald Tribune. © 1955, New York Herald Tribune Inc.

RABAT, French Morocco, Nov. 19.—A native leader and his bodyguard were killed and five other persons were wounded, two of them critically, today in an outbreak of political violence in the courtyard of Sultan Sidi Mohammed ben Youssef's palace.

The principal victim was Khalifa Mohammed Reshidi, assistant native Governor of Fez and a supporter of the deposed Sultan Sidi Mohammed ben Mouley Arafa. Recognized by opponents of the pro-French Ben Mouley Arafa, the caliph was stabbed and slashed to death as he arrived at the palace with an entourage to make his peace with Ben Youssef.

French reports said the caliph tried in vain to defend himself with a dagger and a pistol.

Troops Restore Order

The furious factional melee that ensued was quickly halted by the red-garnisoned Negro troops of the palace guard.

The slayings, on the heels of Ben Youssef's personal appeal for peace when he returned here Wednesday after a two-year exile, raised the question of how complete is the control the returned Sultan exercises over his people.

After today's incident, which abruptly ended three days of gay celebration of the monarch's return, Ben Youssef sprinted out-side the palace with his son, Prince Mouley Hassan, to tell the assembled crowd the slayings were harmful to the Moroccan cause.

French Alerted

Ben Youssef has recommended that his subjects forgive and forget, but according to evidence the authorities have collected, many natives cannot see why the main collaborators of Ben Mouley Arafa should not be punished.

Split Holds On New U.N. Members

Big-4 Delegates Confer in Vain

By Ach Parsons Jr.

UNITED NATIONS, N. Y., Nov. 19.—U. S. representatives of the Big Four—the United States, Great Britain, France and Russia—failed in a private meeting today to reach agreement on a way out of the East-West deadlock over the admissions of a large group of nations to the U. N.

A spokesman for the United States delegation announced after the meeting that "no agreement was reached" but that "conversations will continue"—presumably over the week end and up to the time when the U. N. Security Council meets some day next week for a showdown on the membership question.

The point in dispute—principally between the United States and the Soviet Union—is whether Outer Mongolia should be admitted. This was clearly the main subject of debate at the meeting held today in the form of a luncheon at the

Top Democrats Unite To Blast Republican Foreign, Home Policy

SHOWS OFF IN HOMAGE—Communist party leader Khrushchev (left) and Prime Minister Bulganin at the Mahatma Gandhi memorial in New Delhi yesterday.

Stevenson For Middle Of the Road

Kefauver Backs Moderation Plea

Stevenson address—Page 24.

By Walter Kerr

CHICAGO, Nov. 19.—Top leaders of the Democratic party launched a slashing attack on the foreign and domestic policies of the Republican party here tonight.

Its three leading candidates for the Presidential nomination next year joined in accusing the Eisenhower administration of lowering American prestige abroad and organizing a government favorable to "big business."

They spoke at a $100-a-plate dinner organized by the Democratic National Committee at the International Amphitheater here.

Middle of the Road

At the same time the only avowed candidate, Adlai E. Stevenson, of Illinois, and Sen. Estes Kefauver, of Tennessee, who is expected to announce his candidacy next month, took a line toward the middle of the road. The third leading candidate, Gov. Harriman of New York, who spoke

NEW YORK HERALD TRIBUNE

The front page of the November 20, 1955 issue of the New York Herald Tribune.

The articles outline several research institutes that were focused on unlocking the secrets of gravity in the 1950s, including several major universities and private laboratories. A key part of much of the research conducted at these facilities involved relatively down-to-earth topics like electromagnetism, rotating masses at high speeds, and various methods of attempting to reduce an aircraft’s mass.

Ansel Talbert was offered a firsthand glimpse into the research conducted at many of the laboratories set up in the 1950s to research gravity and attempts to combat it. His series of articles exploring the subject mention the anti-gravity interests and research of some of the biggest names in aviation: William P. Lear, Lawrence D. Bell, Dr. Igor I. Sikorsky, Martin's Vice President Trimble, and even frozen foods magnate Clarence Birdseye. "Mr. Birdseye gave the world its first packaged quick-frozen foods and laid the foundation for today's frozen food industry," Talbert wrote, "more recently he has become interested in gravitational studies."

Lawrence D. Bell, founder and president of Bell Aircraft Corp., of Buffalo, using a Japanese ivory ball to illustrate his view that humans before long will operate planes outside the earth's atmosphere, then outside the gravity field of the earth. The pilots with him, three top test pilots of the Air Force, are, left, Lt. Col. Frank J. Everest; center, in light suit, Maj. Charles Yeager, and, in uniform next to Mr. Bell, Maj. Arthur Murray.

NEW YORK HERALD TRIBUNE

Lawrence Bell of Bell Aircraft with Lt. Col Frank J. Everest, Maj. Charles Yeager, and Maj. Arthur Murray. According to Talbert's articles, Bell believed that is was possible "to cancel out gravity instead of fighting it."

Talbert’s series offers a fascinating glimpse into the many anti-gravity research efforts which were underway in the mid-1950s, but like all accounts of anti-gravity or breakthrough propulsion research, none of the subjects Talbert interviewed offered any suggestion that conclusive working anti-gravity technologies ever came from these endeavors.

Still, Talbert points out that some of the brightest minds in aerospace engineering and physics were devoted to studying gravity at the time, studies which led to important breakthroughs in general relativity:

The current efforts to understand gravity and universal gravitation both at the sub-atomic level and at the level of the universe have the positive backing today of many of America's outstanding physicists.

These include Dr. Edward Teller of the University of California, who received prime credit for developing the hydrogen bomb; Dr. J. Robert Oppenheimer, director of the Institute for Advanced Study at Princeton; Dr. Freeman J. Dyson, theoretical physicist at the Institute, and Dr. John A. Wheeler, professor of physics at Princeton University who made important

contributions to America's first nuclear fission project.

It must be stressed that scientists in this group approach the problem only from the standpoint of pure research. They refuse to predict exactly in what directions the search will lead or whether it will be successful beyond broadening human knowledge generally.

One of the biggest takeaways from Talbert’s series is the optimism shared by many of those involved with the project, as well as the stigma surrounding such an endeavor, even back then:

Grover Loening, who was the first graduate in aeronautics in an American university and the first engineer hired by the Wright Brothers, holds similar views. Over a period of forty years, Mr. Loening has had a distinguished career as an aircraft designer and builder and recently was decorated by the United States Air Force for his work as a special scientific consultant. "I firmly believe that before long man will acquire the ability to build an electromagnetic contra-gravity mechanism that works," he says. "Much the same line of reasoning that enabled scientists to split up atomic structures also will enable them to learn the nature of gravitational attraction and ways to counter it."

Right now there is considerable difference of opinion among those working to discover the secret of gravity and universal gravitation as to exactly how long the project will take. George S. Trimble, a brilliant young scientist who is head of the new advanced design division of Martin Aircraft in Baltimore and a member of the sub-committee on high-speed aerodynamics of the

National Advisory Committee for Aeronautics, believes that it could be done relatively quickly if sufficient resources and momentum were put behind the program.

"I think we could do the job in about the time that it actually required to build the first atom bomb if enough trained scientific brainpower simultaneously began thinking about and working towards a solution," he said. "Actually, the biggest deterrent to scientific progress is a refusal of some people, including scientists, to believe that things which seem amazing can really happen... I know that if Washington decides that it is vital to our national survival to go where we want and do what we want without having to worry about gravity, we'd find the answer rapidly."

Transcribed full text versions of Talbert's articles "Conquest of Gravity Aim of Top Scientists in U.S.," "Space-Ship Marvel Seen If Gravity is Outwitted," and "New Air Dream - Planes Flying Outside Gravity" can be found online, while digital versions of the articles as they appeared in the New York Herald Tribune can be found through the Herald Tribune archives available through the ProQuest database or the New York Public Library system.

Space-Ship Marvel

To the N. Y. Herald Tribune:

"Space-Ship Marvel Seen If Gravity Is Outwitted," is the headline on Mr. Ansel Talbert's article.

Fascinating, and to think that this "marvel" is not the creature of a literary imagination but the hopeful speculation of hard-headed scientists!

But the most interesting thing about this is that the explanation of how the "marvel" might operate is precisely how many scientists explained the flying saucers might work, even to the undreamed-of acceleration in seconds to a thousand miles an hour.

Is it not ironic that this scientific guess-projection into the future comes only a few weeks after the Air Force solemnly tells us there ain't no such animal? Perhaps the men of another planet are several centuries ahead of us in keeping gravity in its place and putting the magnetic field to practical use.

I hope I'm around when the great day arrives.

DELMER HUBBELL.

New York, Nov. 23, 1955.

NEW YORK HERALD TRIBUNE

An op-ed sent to the New York Herald Tribune in response to Talbert's series.

The Aerospace Research Laboratories At Wright Patterson Air Force Base

George Trimble, Clarence Birdseye, and Lawrence Bell weren't the only ones interested in researching anti-gravity. Talbert's series reported that nearly every major aerospace company at the time was involved in some way with researching "the gravity problem": Convair, Lear, Sikorsky, Sperry-Rand Corp., General Dynamics, and Avro Canada. Just as Dr. Louis Witten mentioned off-hand in the closing seconds of his speech at the 27th Texas Symposium on Relativistic Astrophysics, the United States Air Force also established its own gravity research project at Wright Patterson Air Force Base.

The project was initially known as the General Physics Laboratory of the Aeronautical Research Laboratories (ARL), but its name was changed to Aerospace Research Laboratories at some point. To head the project, the Air Force hired physicist Joshua N. Goldberg who had recently received his PhD from Syracuse University. According to Goldberg's Curriculum Vitae, he served as a research physicist at Wright Patterson's Aerospace Research Laboratories from 1956 to 1962, as well as teaching graduate-level classical mechanics at the Ohio State University Extension at Wright Patterson.

Goldberg's publications from that period show he published a number of theoretical articles in academic journals while working at Wright Patterson, including titles such as "Conservation Laws in General Relativity", "Measurement of Distance in General Relativity", and "Einstein Spaces with Four-parameter Holonomy Group."

Many of Goldberg's peers at Wright Patterson likewise produced peer-reviewed research in general relativity while at Wright Patterson. Numbers

vary, but some accounts say dozens of studies were produced by Goldberg's group. Some of the reports published from that era include equation-dense publications like "Some Extensions of Liapunov's Second Method" by J.P. LaSalle and "Gravitational Field of a Spinning Mass as an Example of Algebraically Special Metrics" by Roy Kerr.

GRAVITATIONAL FIELD OF A SPINNING MASS AS AN EXAMPLE OF ALGEBRAICALLY SPECIAL METRICS

Roy P. Kerr*

University of Texas, Austin, Texas and Aerospace Research Laboratories, Wright-Patterson Air Force Base, Ohio

(Received 26 July 1963)

Goldberg and Sachs[1] have proved that the algebraically special solutions of Einstein's empty-space field equations are characterized by the existence of a geodesic and shear-free ray congruence, k_μ. Among these spaces are the plane-fronted waves and the Robinson-Trautman metrics[2] for which the congruence has nonvanishing divergence, but is hypersurface orthogonal.

In this note we shall present the class of solutions for which the congruence is diverging, and is not necessarily hypersurface orthogonal. The only previously known example of the general case is the Newman, Unti, and Tamburino metrics,[3] which is of Petrov Type D, and possesses a four-dimensional group of isometries.

If we introduce a complex null tetrad (l^* is the complex conjugate of l), with

$$ds^2 = 2ll^* + 2mk,$$

then the coordinate system may be chosen so that

$$l = P(r + i\Delta)d\zeta,$$

$$k = du + 2\,\mathrm{Re}(\Omega d\zeta),$$

$$m = dr - 2\,\mathrm{Re}\{[(r - i\Delta)\dot{\Omega} + iD\Delta]d\zeta\} + \Big\{r\dot{P}/P + \mathrm{Re}\big[P^{-2}D(D^*\ln P + \dot{\Omega}^*)\big] + \frac{m_1 r - m_2\Delta}{r^2 + \Delta^2}\Big\}k; \qquad (1)$$

where ζ is a complex coordinate, a dot denotes differentiation with respect to u, and the operator D is defined by

$$D = \partial/\partial\zeta - \Omega\partial/\partial u.$$

P is real, whereas Ω and m (which is defined to be $m_1 + im_2$) are complex. They are all independent of the coordinate r. Δ is defined by

$$\Delta = \mathrm{Im}(P^{-2}D^*\Omega).$$

There are two natural choices that can be made for the coordinate system. Either (A) P can be chosen to be unity, in which case Ω is complex, or (B) Ω can be taken pure imaginary, with P different from unity. In case (A), the field equations are

$$(m - D^*D^*D\Omega) = |\partial_u D\Omega|^2, \qquad (2)$$

$$\mathrm{Im}(m - D^*D^*D\Omega) = 0, \qquad (3)$$

$$D^*m = 3m\dot{\Omega}. \qquad (4)$$

The second coordinate system is probably better, but it gives more complicated field equations.

It will be observed that if m is zero then the field equations are integrable. These spaces correspond to the Type-III and null spaces with

Viewpoints differ on the nature of the research conducted at Wright-Patterson under this program. Some have posited that it had to do with actually trying to develop anti-gravity propulsion, while others say its goals were far more mundane.

Nevertheless, the research supported by the Air Force led to what some science historians have called the “Golden Age of Relativity,” a title disputed by others, such as German physicist Hubert Goenner, who argues that “to a great extent what was named the ‘Golden age of relativity’ in the United States, may have been nothing but a feature of a general trend in physics after the ‘Sputnik’-shock.” It’s often claimed that the institute at Wright Patterson and other associated Air Force-funded laboratories were set up merely to investigate reports of Russian anti-gravity research to see if America's adversaries had achieved what the United States had not been able to.

The anti-gravity research conducted at Wright Patterson concluded in the early 1970s with the passage of the Mansfield Amendments. The first of these, passed in 1970, limited “military funding of research that lacked a direct or apparent relationship to a specific military function.”

According to an Office of Technology Assessment report delivered to the U.S. House of Representatives in 1991, these Mansfield Amendments for some years somewhat slowed the rate of U.S. military research into the types of lofty, abstract topics studied at Wright Patterson throughout the 1950s and 1960s. Following those Amendments, the Department of Defense’s research strategy shifted more towards the proposal-grant model seen at university and private laboratories today.

That is not to say that the U.S. military's research into gravitation ended with the Mansfield Amendments or was limited solely to Goldberg's group at Wright Patterson. There is a wealth of research in the public realm that shows the Air Force's research into these concepts continued long after the scientists at that base moved on to long careers in academia.

In 1972, an ad hoc group with Franklin Mead, then Senior Aerospace Engineer with the Air Force Aerospace Research Laboratories, serving as editor had published a technical report titled "Advanced Propulsion Concepts - Project Outgrowth" for the Air Force Rocket Propulsion Laboratory at Edwards Air Force Base. The document discusses various advanced propulsion concepts ranging from traditional rocket propulsion to "anti-gravity propulsion," to which an entire chapter is dedicated.

Two main approaches are outlined in Project Outgrowth: those using gravitational absorption, and those based on unified field theory which unites electromagnetism and gravitation. While the document notes that these approaches would "require some major breakthroughs in materials," it points out that "no new or radical change in fundamental physics" would be required to make these breakthroughs a reality. In other words, Mead and the rest of the study group believed that these types of breakthrough propulsion concepts may be possible once materials sciences caught up with concepts developed in theoretical physics.

AFRPL-TR-72-31

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ADVANCED PROPULSION CONCEPTS – PROJECT OUTGROWTH

F.B. MEAD, JR., EDITOR

TECHNICAL REPORT AFRPL-TR-72-31

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UNITED STATES AIR FORCE
EDWARDS, CALIFORNIA

27

Throughout the expansive Project Outgrowth document, Mead and the other scientists also explored field propulsion, defined as those concepts which use "electric and/or magnetic fields to accelerate an ionized working fluid, or react directly with the environment by electric or magnetic effects."

While a range of theoretical field propulsion approaches were analyzed, they concluded that "it would be impossible within the time constraints of this study to evaluate the field propulsion area completely," noting however that "more radical concepts may be found in the open literature by those interested in pursuing them."

Still, the document contains quite a few curiosities. One chapter, titled "Electrostatic Effects," describes the use of electric generators to charge giant metallic spheres buried in the ground six miles apart in symmetrical arrangements. Another sphere would be placed on top of the ground in the center of this arrangement of spheres, which would then be shot up to 620 miles into space when the other spheres are charged with an intense electrical current, according to the document. It is also claimed that vehicles flying in space with charged skins could be used to cause the spheres to change directions instantly without any loss of velocity or use of propellant.

c. Force Between Buried Spheres: The forces between charged bodies are extreme at close distances. For the spheres buried in the earth (see Figure II-32), the total force is 3.95-million pounds. Clearly, these spheres need substantial support.

d. Surface Tension: When the spheres are charged, the charges act to repel each other. This repulsion manifests itself as a surface tension which must be supported by the conductor and dielectric. From Jeans (Ref. II-39), the surface tension is:

$$T = (10 \times 10^5)\,\sigma^2 \text{ newtons/m}^2$$

or:

$$T = (28.8\,\sigma)^2 \text{ lbf/in.}^2$$

Where σ is the surface charge density in coulombs per square meter.

For the 10-meter-diameter spheres, $\sigma = 0.885$ coulomb/m^2. This gives a surface tension of 6.5×10^2 lbs/in^2. The yield strength of most materials is in the order of 10^4 psi, so the surface tension effect should not permanently distort the spheres.

e. Lift Force: The repulsion force, due to the four spheres pushing on the fifth sphere, will raise the free sphere to a point where the ratio of force to weight is one. This point occurs at an altitude just under 10^6 meters or 1000 km. This is about 620 miles. The exact solution for the height requires a trial and error solution of the equation:

$$h^2 = \frac{\left[(5 \times 10^3) + h^2\right]^3}{1.83 \times 10^{18}}$$

These results show that a sphere can be continuously supported by an electrostatic field at a height of 620 miles with little loss in energy.

As fascinating as this experiment sounds, there is nothing in the document to suggest the Air Force actually sent metal spheres flying into the sky, and the document points out that “analysis of this concept completely ignores the effect of the immense electric fields of the surrounding environment,” noting that ambient ions accumulating around the spheres would nullify the repulsion effect.

"Handling and producing charged objects of the magnitude assumed for the analysis may be well beyond the reach of technology for decades to come“ and "all of the ideas discussed lack theoretical and technical merit,” the study group concluded.

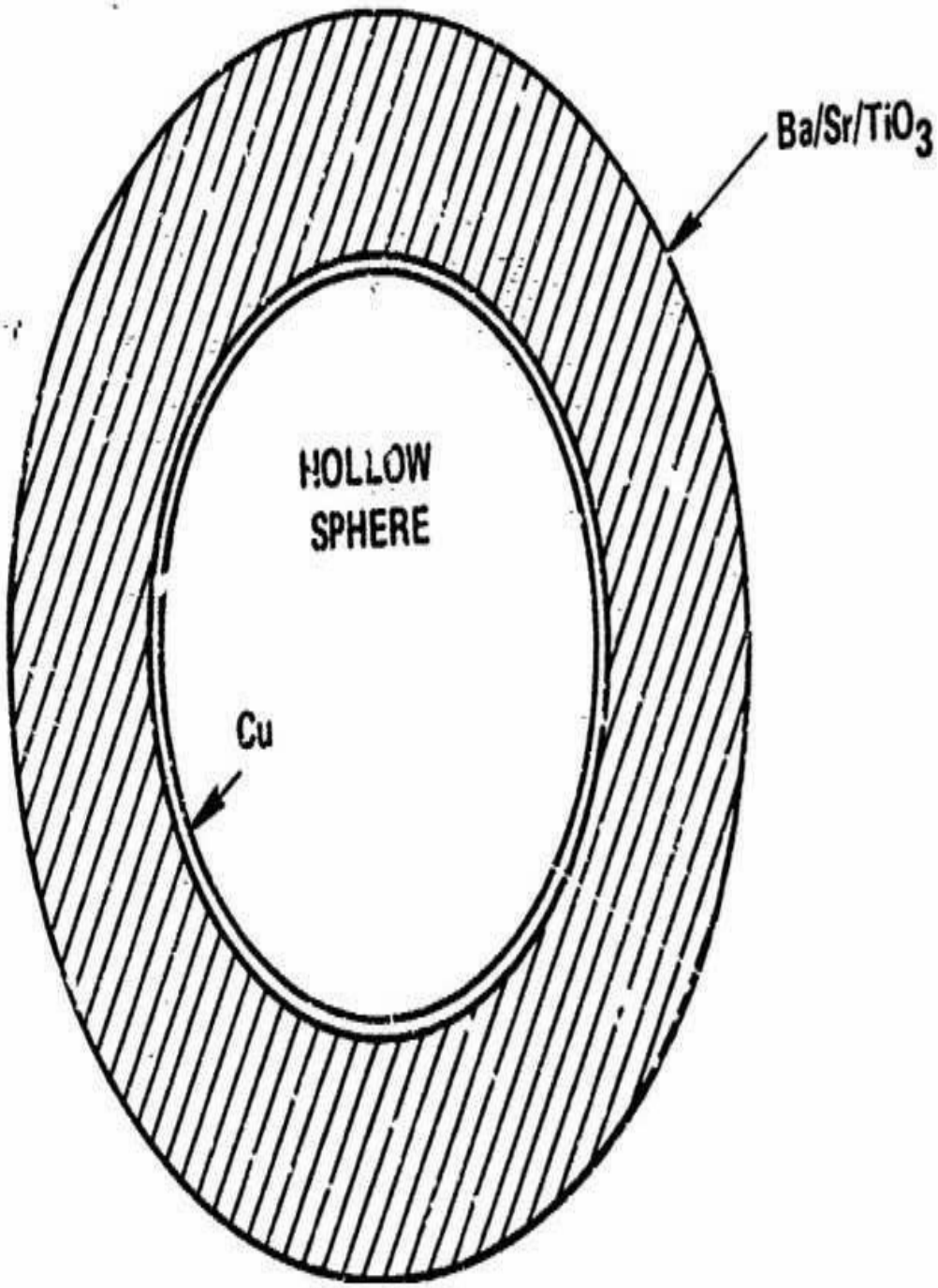


Figure II-33. Electrostatic Sphere Cross Section

The same document outlines theoretical approaches at using superconductors to achieve electromagnetic spacecraft propulsion, noting that the applications of high energy electromagnetic fields range far beyond propulsion:

The greatest advantage of this concept is that the system is initially charged on earth with a tremendous amount of massless energy which is stored in a low-loss propulsion system. [...] Similar to other low-thrust vehicles, this system is capable of accelerating to very high velocities when operating over great distances for substantial periods of time. [...] This system could be used to decelerate vehicles approaching the Earth at high speed. Militarily, this concept could, with its high magnetic field, destroy, deflect, or severely damage incoming high-speed projectiles.

The Project Outgrowth document concludes by arguing that while many of these concepts are still out of the grasp of the USAF, advances in materials and engineering could make what in 1972 seemed like fantasy a reality in the decades to come:

Obviously, advancements in certain areas of technology could make a number of concepts suddenly very attractive. Improvements in high energy lasers by several orders of magnitude of energy output or new concepts involving long-distance energy transfer would make both laser propulsion and infinite Isp ramjet very attractive. The development of higher current density superconductors, metallic hydrogen, or even room temperature superconductors would make many of the magnetic concepts more attractive. [...]

Radical departures from time-honored, well-proved approaches are either discarded or lack visualization. Possibly, not until man truly becomes a creature of space will the restrictions imposed on his imagination be removed and radically new propulsion concepts devised. We are just beginning to understand the true nature of space and to attempt to utilize this environment for our propulsion needs.

The same concepts explored in the Project Outgrowth document were later examined by subsequent Air Force-funded studies. In 1988, the New York-based Veritay Technology, Inc. submitted the document “21st Century Propulsion Concept” to the Air Force Astronautics Laboratory (AFAL) at Edwards Air Force Base. The document looks at the Biefield-Brown effect, a controversial theory that claims that electrical fields can produce propulsive forces sometimes referred to as ionic wind. The AFAL was able to generate minuscule measures of propulsion with the concept, but concluded that “ion propulsion effects are negligible.”

A similar report from 1989 titled “Electric Propulsion Study” also complied for the Astronautics Laboratory at Edwards outlines a variety of theories and experiments that explore the interactions between gravitational, electrical, and electromagnetic fields. Concepts like ionic wind, the Mach effect, and various applications of high energy electromagnetic fields are discussed.

One brief chapter explores the concept of inertial mass variation using a rotating cylinder filled with mercury. The Air Force concluded that the experiment showed little promise and that “no AFAL action is suggested at this time” but that “should an experiment by external agencies be done with positive results, then this area should be reconsidered.”

Ultimately, the document concludes that while much of the research it cites is still in its infancy, inertial mass reduction techniques may offer the most promising results with further study:

It is recommended that policies and plans take into consideration long time studies in the area of gravity and inertia. These areas deserve more emphasis. This is likely to be more important than any single experimental program. Since chemical propulsion is reaching its theoretical limits and nuclear propulsion has political difficulties, it is more likely that gravitational and electromagnetic studies will lead to future breakthroughs than any nuclear force studies (with the possible exception of more recent low temperature fusion work).

The Air Force continues to look into ways of defying gravity without the use of propellants and some technical reports maintain that this will soon be possible. According to the 2006 study “Advanced Technology and Breakthrough Physics for 2025 and 2050 Military Aerospace Vehicles” which was published by the American Institute of Physics, some scientists claim that next-generation propulsion may be achieved sometime within the next three decades.

The study was compiled at the request of the U.S. Air Force Research Laboratory (AFRL) and examines the technological breakthroughs that researchers believed could be developed and implemented by 2025 and 2050.

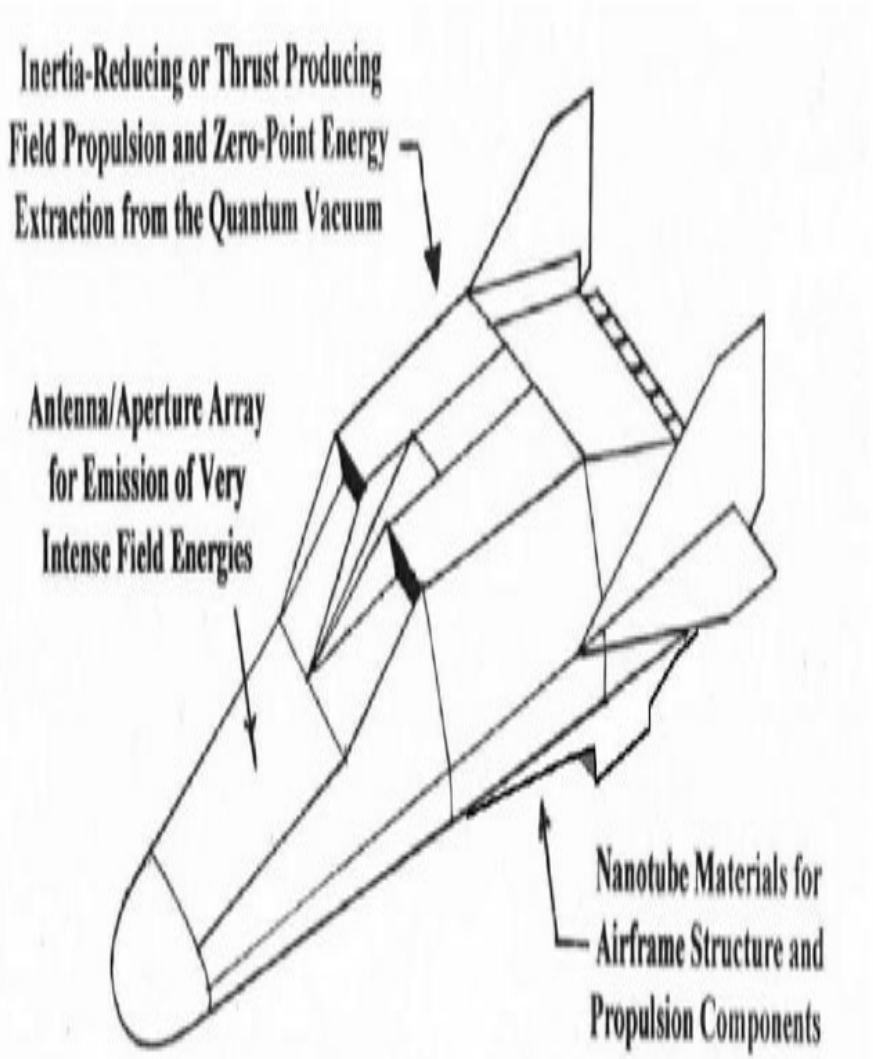


FIGURE 8. Example of Augmenting Jet Power and Propulsion with Field Power and Propulsion.

AMERICAN INSTITUTE OF PHYSICS

The conceptual "2050 vehicle" featuring hypothetical inertial mass reduction technology which is theorized to extract energy from the quantum vacuum.

While most of the report centers around compact fusion reactors and the developments of new high temperature composite materials, the section on the “2050 Vehicle” predicts that the jet propulsion and power systems of this hypothetical aircraft will come in the form of propellant-less field propulsion based on the principle of inducing mass fluctuations using high-frequency electromagnetic fields:

One example of propellant-less field propulsion [...] proposes the use of high voltage and high frequency electromagnetic (em) field pulsations to induce mass fluctuations within the electronic and ionic structure of dielectric materials - to cause a favorable “gravinertial” field coupling with nearby and distant matter that results in unidirectional force.

Of course, as we now know, the USAF isn’t the sole branch of the military openly looking into next-generation hypothetical vehicles based on concepts of electromagnetic fields and inertial mass variation. Based on the recent announcement declaring a partnership with TTSA, we know even the U.S. Army is also exploring similar concepts for next-generation ground vehicles that exploit the same principles the USAF has explored for decades: mass manipulation, electromagnetic metamaterial waveguides, and quantum

physics.

Civilian Research Into Gravitation, Electromagnetism, And Propulsion

The military isn't the only sector that has for decades conducted research that has explored the boundaries of aerospace propulsion and general relativity. In 1996, NASA funded an endeavor known as the Breakthrough Propulsion Physics (BPP) Program which invited some of the brightest minds in physics and aerospace engineering to propose radical new ideas to propel spaceflight into a new paradigm.

In a paper outlining the BPP program presented at the Second Symposium on Realistic Near-Term Advanced Scientific Space Missions in 1998, its director, Marc Miller, offered an overview of NASA's aims for the project, noting that "it is known from observed phenomena and from the established physics of General Relativity that gravity, electromagnetism, and spacetime are inter-related phenomena" and that "these ideas have led to questioning if gravitational or inertial forces can be created or modified using electromagnetism."

Many of the ideas Miller and the NASA BPP program describes were developed or are better understood thanks to the research funded by Wright Patterson, including Hermann Bondi's concept of negative mass (Bondi's group at Kings College, London received funding from the U.S. Air Force) and Joshua Goldberg's theory of gravitational radiation.

In an attempt to achieve breakthrough propulsion based on these concepts, NASA's project identified three major barriers that stood in the way of their main goal of achieving interstellar travel:

(1) MASS: Discover new propulsion methods that eliminate or dramatically reduce the need for propellant. This implies discovering fundamentally new ways to create motion, presumably by manipulating inertia, gravity, or by any other interactions between matter, fields, and spacetime.

(2) SPEED: Discover how to attain the ultimate achievable transit speeds to dramatically reduce travel times. This implies discovering a means to move a vehicle at or near the actual maximum speed limit for motion through space or through the motion of spacetime itself (if possible, this means circumventing the light speed limit).

(3) ENERGY: Discover fundamentally new modes of on board energy generation to power these propulsion devices. This third goal is included since the first two breakthroughs could require breakthroughs in energy generation, and since the physics underlying the propulsion goals is closely linked to energy physics.

In 1997, NASA's Lewis Research Center, now known as the John H. Glenn Research Center at Lewis Field, held a conference on these breakthrough propulsion concepts, the proceedings of which are worth a read and contain titles such as "Inertial Mass as a Reaction of the Vacuum to Accelerated Motion", "Force Field Propulsion", and "The Zero-Point Field and the NASA Challenge to Create the Space Drive".

From what little we know or think we know about Salvatore Cezar Pais, the elusive inventor of the Navy's intriguing if not puzzling anti-gravity 'UFO' patents that we've explored in our previous reporting, he was working on his PhD dissertation at Case Western Reserve University while serving as a NASA Graduate Student Research Fellow at NASA's John H. Glenn Research Center at Lewis Field at the time of the conference.

There's no concrete evidence that Pais attended the workshop, but according to the document's foreword, 12 students were in attendance. The table of contents for the conference proceedings lists a total of 449 pages, the last of which is a list of workshop participants. However, the versions available online stop at page 389. We are currently pursuing a Freedom of Information Act request to obtain the missing pages.

Confirming Pais' presence at the conference would be significant because many of the exact same revolutionary concepts that NASA was exploring in terms of unlocking new forms of propulsion and space travel are the same types of concepts found throughout the patents for his "hybrid aerospace-underwater craft" and "high energy electromagnetic field generator."

Many of the participants at NASA's workshop are also cited throughout Pais' patents and publications. Placing Pais at the conference would add to the body of evidence which suggests the technologies in the Navy's patents may have been in the works for the past 20 years, at least as far as the inventor is concerned. In reality though, as we've laid out here, many of the concepts in Pais' patents are similar to those which were researched at Wright-Patterson and other facilities in the 1950s and are still being explored today.

Aside from NASA, academic and independent laboratories have been researching the same principles and approaches the Air Force and other military laboratories have been looking into for decades. One of the most commonly researched areas is in hypothetically reducing an aircraft's mass using electromagnetism, preferably to zero, and several Lockheed Martin researchers have been involved with quite a few theoretical studies into altering inertial mass (see Haisch, Rueda, and Puthoff, 1998; Rueda and Haisch, 1998; Haisch and Rueda, 1999; and Woodward, Mahood, and March 2001).

A large body of peer-reviewed research into mass reduction involves using advanced superconducting materials such as yttrium barium copper oxide, or YBCO (see Podkletnov and Nieminen, 1992; Li et al, 1997; and Podkletnov and Modanese, 2001). Some of these studies, many of them more than 20 years old, reported observing mass reductions of up to two percent. Of course, just because scientists report a peer-reviewed result doesn't mean their data can't be challenged or have been impacted by spurious factors.

Other attempts to overcome and harness gravity focus on the use of electromagnetic fields. In the 2007 publication "The Connection between Inertial Forces and the Vector Potential", researchers found a connection between electric and magnetic fields, writing that there is a "possibility to manipulate inertial mass" and potentially "some mechanisms for possible applications to electromagnetic propulsion and the development of advanced space propulsion physics."

In 2010, an Air Force-funded study at the University of Florida leveraged these principles to design and test a "Wingless Electromagnetic Air Vehicle (WEAV)" which is claimed to employ "no moving parts and assures near-instantaneous response time." The study writes that this vehicle is designed to

support the Air Force Research Laboratory's strategy to “deliver precision effects: ubiquitous, swarming sensors and shooters” by 2015-2030.

The study was able to produce a disc that "was able to hover a few millimeters above the surface for a sustained duration (about three minutes)" and noted that "prototypes of varying radius were also successfully 'flown', demonstrating that WEAV is scalable."

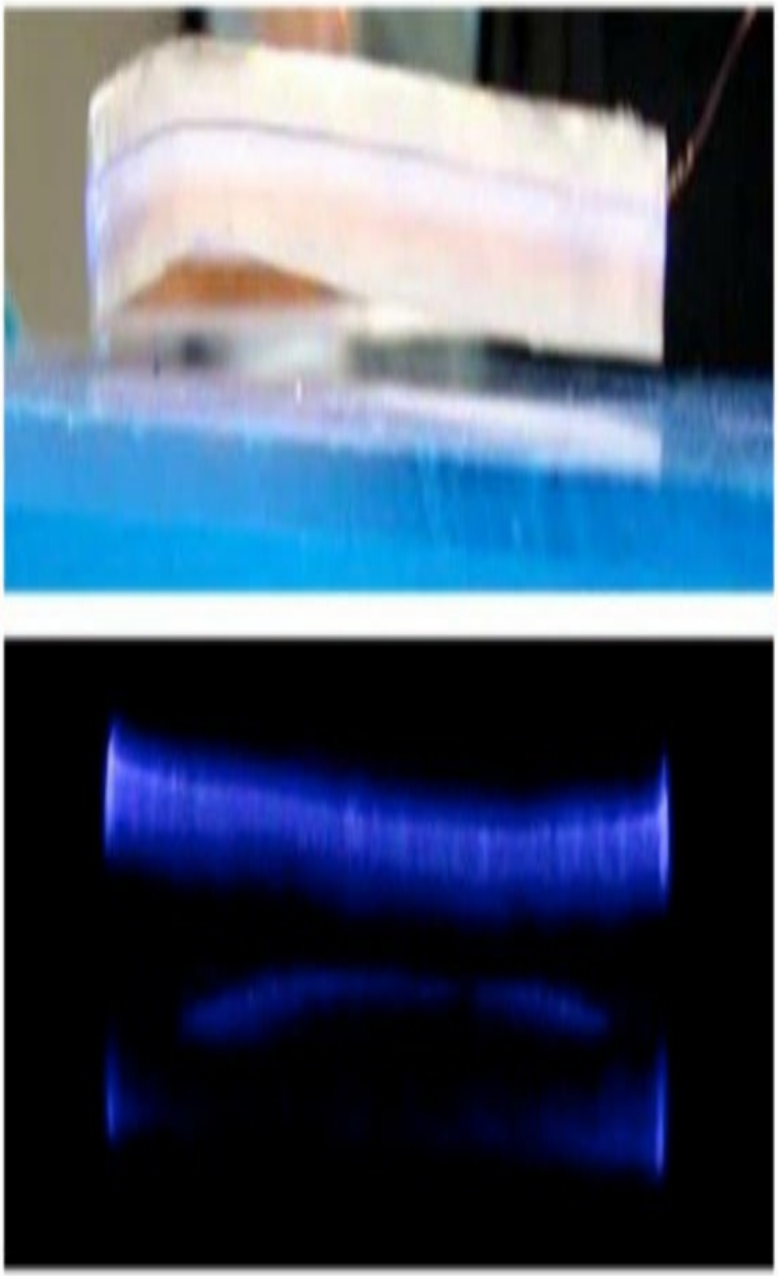


Figure 24. Demonstration of successful liftoff of WEAV prototype

Many other approaches have focused on the unique properties of novel materials. The 2007 publication “Direct Experimental Evidence of Electromagnetic Inertia Manipulation Thrusting" reports “new experimental results suggesting that ‘propellantless’ propulsion without conventional external assistance has been achieved by means of electromagnetic inertia manipulation” using piezoelectric materials, compounds that change shape when subjected to an electrical charge.

In fact, several researchers have reported significant results in mass manipulation using a specific piezoelectric compound, lead zirconate titanate (PZT), which is found throughout several of the Navy’s recent patents. One physicist in particular, Dr. James Woodward of California State Fullerton, has found repeated success in altering the mass of small test samples of PZT.

While the levels of mass reduction Woodward has observed are tiny, so are the samples and energy levels he has used. Still, in one study published with aerospace engineer Paul T. March, then at Lockheed Martin, the authors note that “very large mass fluctuation effects should be producible with only relatively modest power levels,” but are beyond the scope and scale of their study.

Even so, Woodward’s results have been so promising that at least two Air Force studies, the 1989 technical report “Electric Propulsion Study” and the 2017 paper “Movement and Maneuver in Deep Space: A Framework to Leverage Advanced Propulsion”, call attention to his research in particular and note that his approach seems most promising.

However, the 2017 Air Force paper notes that “obvious institutional and funding barriers stand in the way” and that “materials science and

engineering work would be required to produce new piezoelectric materials and compensate for natural resonance, mechanical fatigue, and thermal effects.”

Perhaps for that reason and for likely many more, various branches of the Armed Forces have for years been actively researching metamaterials that can propagate high energy electromagnetic fields. Navy budget documents show that between 2011 and 2016, the Navy’s In-House Laboratory Independent Research program conducted research into the “dispersion and control of electromagnetic (EM) waves in the microwave (RF) region, using fabricated metamaterial structures”.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 1	**R-1 Program Element (Number/Name)** PE 0601152N / *In-House Lab Independent Res*	**Project (Number/Name)** 0000 / *In-House Lab Independent Res*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
- Completed research for Control and Dispersion of Electromagnetic Energy Using Metamaterials, where the dispersion and control of electromagnetic (EM) waves in the microwave (RF) region, using fabricated metamaterial structures, were demonstrated. Six metamaterial structures were modeled using in-house programs, DOD supercomputer resources, and High Frequency Structure Simulation (HFSS) software, and fabricated use photolithography, vapor deposition, and chemical and reactive ion etching. Scattering parameters (transmittance and reflectance), were acquired using a Network Analyzer coupled to a free space analysis setup. - Completed research for Polyurea Silicate Composites. The objective of this research is to identify the structural transitions and interactions of the polyurea and nanoparticle that underlie the enhanced mechanical mechanisms for the protective response of polyurea nanocomposites. The approach is to use small angle and wide angle x-ray scattering (SAXS and WAXS) simultaneously with tensile and recovered impact tests to obtain a fundamental understanding of the polyurea nanoparticle effect at the molecular level. The strain rate material responses, both elastic and plastic, would be incorporated into a constitutive equation needed for modeling and for hydrocode simulations for further calculations of optimized geometries and layer thicknesses. - Initiated fundamental research on high strength nanostructures/nanomaterials. - Initiated research for new concepts, configurations, and applications for metamaterials. - Initiated research for high temperature alloys for engine applications. - Initiated research for low-cost, high-strength material repair. - Initiated ILIR projects that are intended to be approximately three years in length. Projects selected for FY 2013 will focus on supporting Naval Materials by Design and Intelligent Naval Sensors, Innovative Naval Prototype initiatives in Electromagnetic Gun and Sea Basing, and National Naval Responsibility initiatives in Undersea Weaponry and Naval Engineering. ***FY 2014 Plans:*** Efforts in this R2 project have been continued in FY 2014 in the new ILIR Program. ***FY 2015 Plans:*** N/A			

Starting in 2017, the Navy combined several program elements under one title, changing the way individual projects are reported in their budget and thus making it more difficult to know whether this metamaterial research continues today.

Scratching The Surface While Not Knowing What Lies Beneath It

The research cited here is only a brief look at a handful of the numerous studies the Air Force, other branches of the military, and various academic laboratories have conducted into "anti-gravity" and various propellantless propulsion methods, and only those that are available to the public. Anyone familiar with military research and development knows that there is a vast trove of projects, associated data, and technologies the public has yet to be shown and may never be shown.

There have been hints of those secret technologies for years offered by insiders of some of America's most high-level aerospace research and development outfits. For instance, Ben Rich, the second director of Lockheed Martin’s Skunk Works, told Popular Science in 1994 the following:

“We have some new things. We are not stagnating. What we are doing is updating ourselves, without advertising. There are some new programs, and there are certain things, some of them 20 or 30 years old, that are still breakthroughs and appropriate to keep quiet about [because] other people don’t have them yet.”

With this in mind, it is possible that there are certain technologies in existence that once were, but may no longer be the things of science fiction.

Regardless, when it comes to harnessing exotic methods of overcoming gravity, the U.S. military’s interest in doing so has continued since the 1950s, and civilian laboratories have been hot on their heels.

We're still pursuing answers to the enigma surrounding the recent Navy patents, but to say they have come out of the blue and have no scientific basis whatsoever seems to be not entirely accurate based on the decades of research we've presented here. The same principles and many of the same names cited in Salvatore Pais' patents filed for the US Navy between 2015 and 2018 appear throughout numerous NASA studies, the peer-reviewed publications of the scientific community, and the long history of U.S. government-funded research into general relativity and breakthrough propulsion science.

We have to stress once again that this doesn't mean that actually realizing these concepts and putting them to use is possible at this time, or even ever in the future, for that matter. But it does show that there has been an incredibly long and detailed history of interest by the U.S. military and the scientific community in this exotic field that has resulted in significant amounts of research that spans nearly seven decades. All this occurred in spite of the fact that scientists realized as far back as the 1950s that the topic was largely taboo and often scoffed at by the larger scientific community.

Once again, what exists behind the curtain of the classified realm is the big wildcard here. With so much research present in the unclassified environment, one can only guess as to just how far the military and their industry partners have actually gone in an effort to obtain the 'Holy Grail' of aerospace engineering. For some, that speculative answer may be not very far at all. For others, it may be quite the contrary. The fact is we just don't know. But at least we do know that the topic, in general, isn't quite as alien as it may sound.

4.0 Alien Anti-Gravity Technology?

Over the years I've also uncovered some possible Alien sources of anti-gravity technology. These concepts and programs are discussed in this chapter.

4.1 Caret Anti-Gravity

In 2007 a strange program came to light which is called the "Caret" program or "The Palo Alto Caret Laboratory" and which is supposed to have been an alien technology re-engineering program based at a civilian company in Silicon Valley in the 1980s. The work was performed on a classified contract for the U.S. military.

The story also includes eyewitnesses who saw a craft at different places in California which is supposed to be U.S. built and based on alien reverse engineered technology. A picture of the unmanned craft is below which has marking later described to be similar to those from the Caret program:

What makes this story so fascinating are pages from supposed secret documents which provide a lot of details about the technology. The program was about sophisticated alien materials which could be programmed to have different physical properties including anti-gravity.

The idea is that these Meta materials have microscopic designs which allow the different properties to manifest purely by drawing the correct diagram. The technology was like writing software to make a program run, but instead of a program the materials would actually become what is programmed.

If true, this technology is obviously hundreds if not thousands of years in advance of ours because it means building Nano-machines at an atomic level and those machines having the ability to manipulate gravity too.

Here is a picture of one of the programming diagrams:

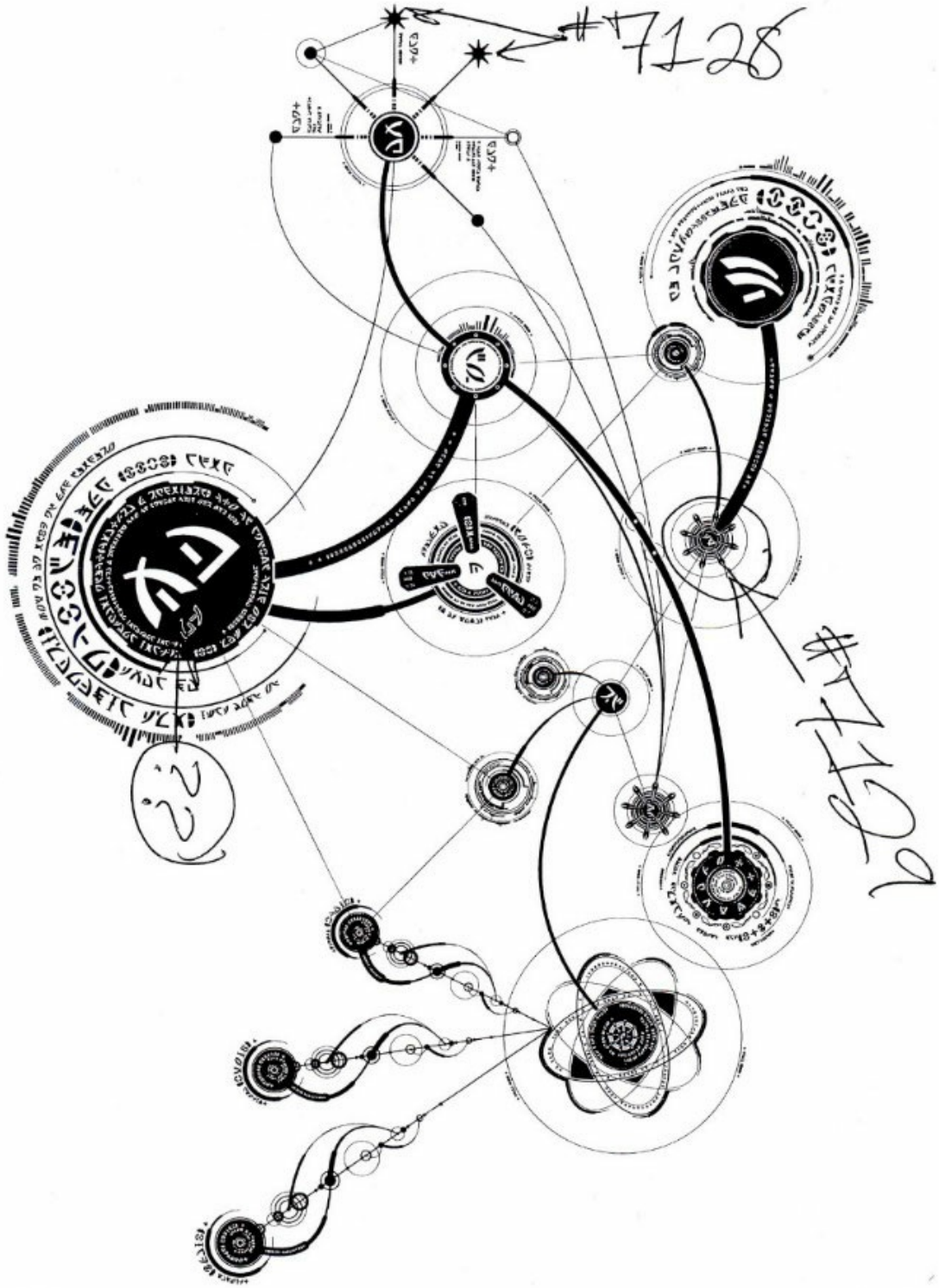


Figure 14.11
Full view of diagram D39-08-117c.

Another picture shows a Caret anti-gravity generator and two objects held in place by a designed anti-gravity field:

This program is so different from anything previously described in alien technology literature that I’m not sure what to make of it. The fact that unmanned craft related to the Caret program were sighted numerous times by eyewitnesses makes me think this was a valid research effort.

4.2 Bob Lazar and Element 115

Robert Scott Lazar (born January 26, 1959) claims to have worked on reverse engineering extraterrestrial technology at a site called S-4, near the Area 51 test facility, and that the UFOs use gravity wave propulsion.

This is powered by the, at the time, undiscovered element 115. He further claims to have read US government briefing documents that describe alien involvement in human affairs over the past 10,000 years. He runs a scientific supply company. Universities from which he claimed to hold degrees show no record of him.

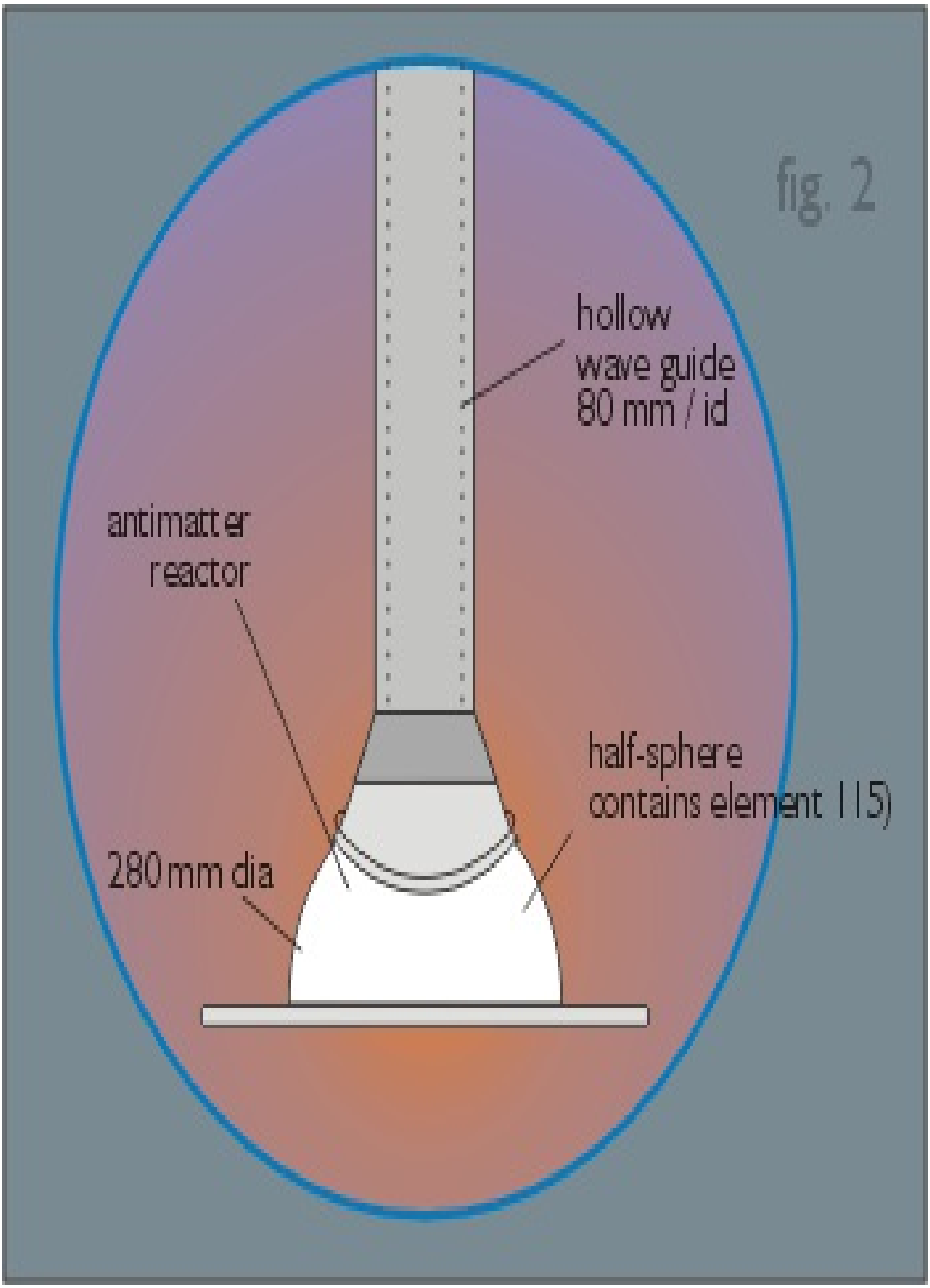


fig. 2
hollow
wave guide
80 mm / id
antimatter
reactor
half-sphere
contains element 115)
280 mm dia

Gravity Amplifier and Core Plates. Bob Lazar worked at Area 51 (or Groom Lake) back in the late 1980's on a back-engineering program that he claims began there in 1979. He says that an 'exchange' program with the ETs occurred in the 1970's, which, resulted in the acquisition of nine UFOs so that their technologies could be researched. That there were indeed strange craft at Area 51 seems to be corroborated by David Adair's visit there in 1971.

The following is an analysis of the way some types of UFOs travel, it's the rubber sheet explanation of space-time manipulation by Bob Lazar.

"Assuming they're in space, they will focus the three gravity generators on the point they want to go to. Now, to give an analogy: If you take a thin rubber sheet, say, lay it on a table and put thumbtacks in each corner, then take a big stone and set it on one end of the rubber sheet and say that's your spacecraft, you pick out a point that you want to go to - which could be anywhere on the rubber sheet - pinch that point with your fingers and pull it all the way up to the craft.

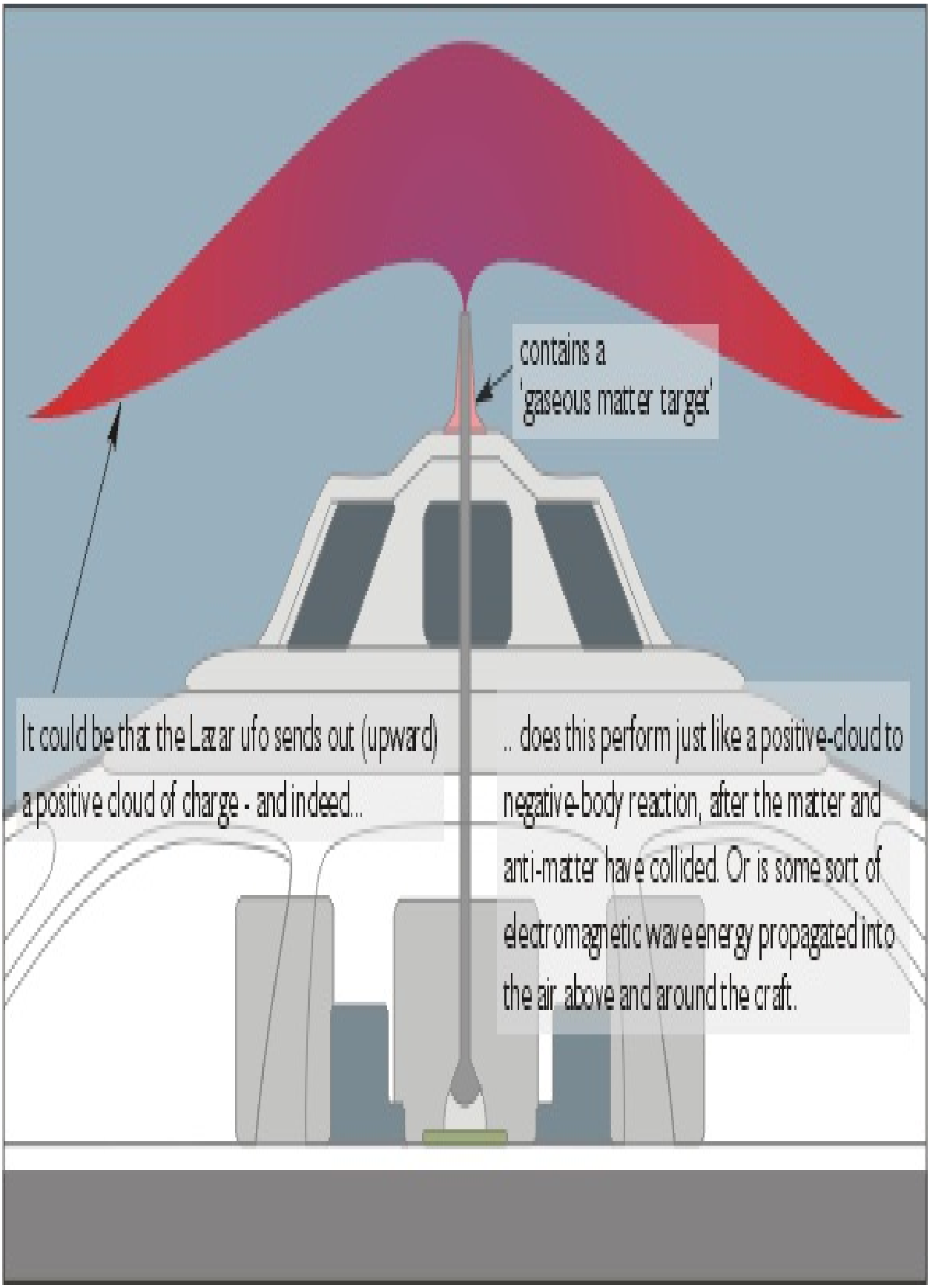
That's how it focuses and pulls that point to it. When you then shut off the gravity generators, the stone (or spacecraft) follows that stretched rubber back to its point. There's no linear travel through space; it actually bends space and time and follows space as it retracts. In the first mode of travel - around the surface of a planet - they essentially balance on the gravitational field that the gravity generators put out, and they can ride a "wave," like a cork does in the ocean. In that mode they're very unstable and are affected by the weather. In the other mode of travel - where they can travel vast distances

- they can’t really do that in a strong gravitational field like Earth, because to do that, first of all, they need to tilt on their side, usually out in space, then they can focus on the point they need to with the gravity generators and move on. If you can picture space as a fabric, and the speed of light is your limit, it’ll take you so long, even at the speed of light, to get from point A to point B. You can’t exceed it - not in this universe anyway. Should there be other parallel universes, maybe the laws are different, but anyone that’s here has to abide by those rules.”

Interestingly, recent research into Bose-Einstein condensate (BEC) has found that by slowing down a body of atoms, to within a fraction of a degree Kelvin (near absolute zero), they coalesce into a “superatom” and when suitably excited by an oscillating field this BEC superatom propagates matter waves, now - its only at an early stage of development here on Earth but it is hoped that one day this technology will produce a tightly focused “matter wave beam” (much like that of the laser light beam) - what is so interesting here, is that if you look at the diagram above of the gravity generators of Lazar’s, its elements look exactly like the rings of optical lasers and magnetic traps used in BEC technology to slow down the atoms, and that these generators emit a beam - one of which is enough for the craft to ride upon - it could mean that the ETs use a system closely related to the propagation of such matter waves. Well, its food for thought.

S4 Disc Anti-Matter Reactor- Inside the reactor, Element 115 is bombarded with a proton which plugs into the nucleus of the 115 atom and becomes Element 116, which immediately decays and releases, or radiates, small amounts of antimatter. The antimatter is released into a tuned tube which keeps it from reacting with the matter that surrounds it. It is then directed toward a gaseous matter target at the end of the tube. The matter and antimatter collide and annihilate, totally converting to energy. The heat from this reaction is converted into electrical energy in a near 100% efficient thermoelectric generator...”1

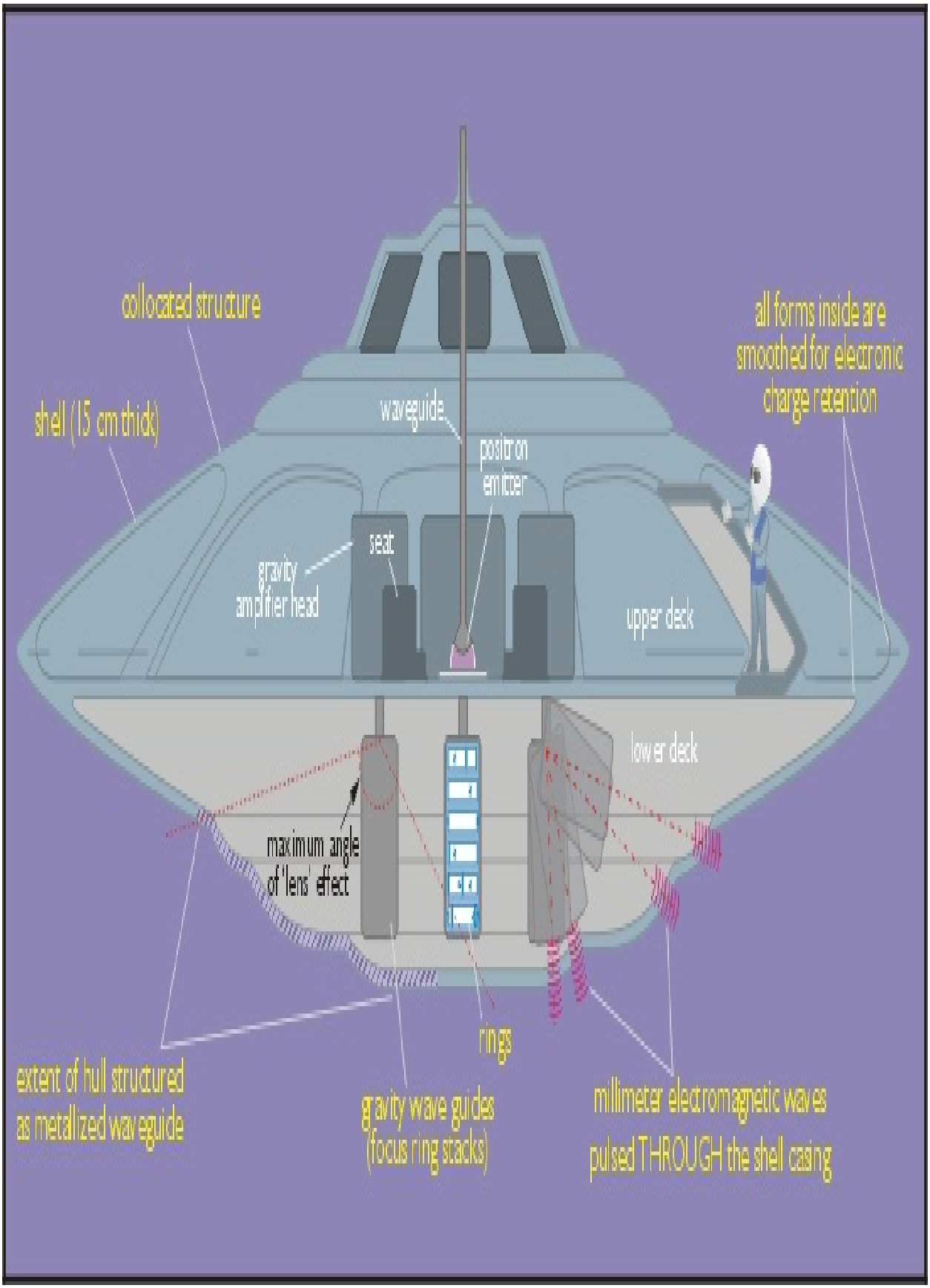
“Element 115 is a super heavy element found probably on a planet of a binary star system. Supposedly the craft uses 223 grams, cut to a triangular shape, within the reactor structure (in a cloud chamber it was shown to alter, by gravitational forces, the paths of released alpha particles).”


contains a
'gaseous matter target'
It could be that the Lazar ufo sends out (upward)
a positive cloud of charge - and indeed...
.. does this perform just like a positive-cloud to
negative-body reaction, after the matter and
anti-matter have collided. Or is some sort of
electromagnetic wave energy propagated into
the air above and around the craft.

The thing about Lazar's central tube assembly, which he doesn't make mention of, is that it surely must be used as a circular cross-section waveguide for high-frequency waves. From his graphics it looks like an 80 mm tube and that would relate to an electromagnetic wave in the microwave region (especially if the tube terminated at the top at a smaller diameter). And whatever the target is, hitting it with these microwaves most probably causes the molecules and atoms of the target "gases" to resonate (as in electron spin resonance), the resonance then pulls the electrons up the energy bands and greatly increases their energy level.

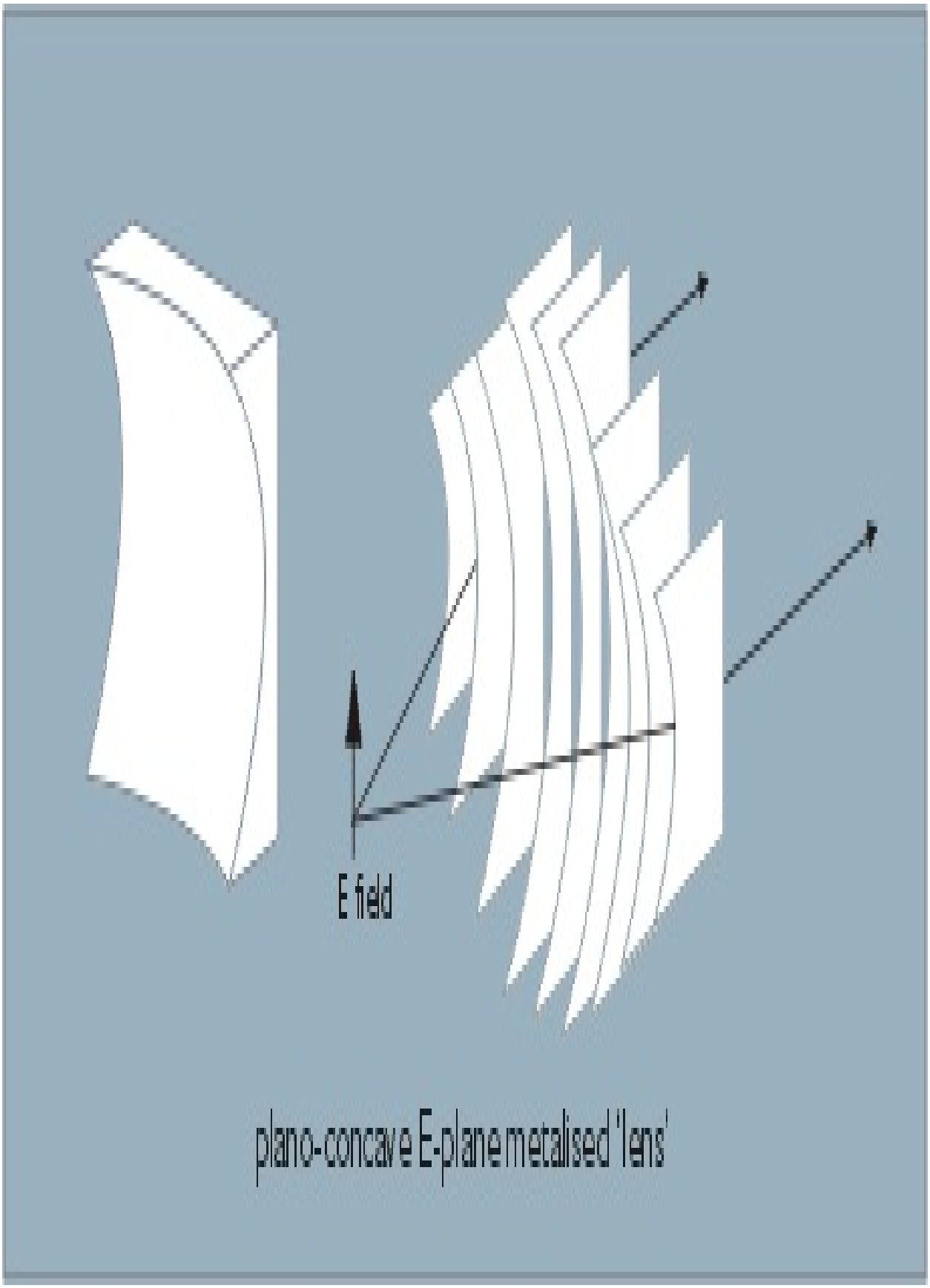
So if, by analogy, we assume that the gravitational wave is similarly structured to that of a sinusoidal electromagnetic wave (there is some evidence to suggest that gravity waves are structured as an electromagnetic wave). What Bob Lazar seems to be saying is that by duplicating exactly this wave, and then propagating this duplicated wave back into the original, after altering its phase (so that - in relation to the existing gravity wave 'force' that is operating throughout this planet - the newly created wave matches it or differs from it) then the newly created gravity force can be made stronger or weaker than the existing one.

OK ... he is saying that if you created the same current-magnetic field combination for the gravity wave (at the same amplitude) but altered the phase to below 90º you would become lighter, and by altering the phase to between 90º and 180º you would be heavier ... Sounds interesting. Is this like selective constructive and destructive interference between two radiating waves maybe ...


collocated structure
shell (15 cm thick)
waveguide
positron emitter
all forms inside are smoothed for electronic charge retention
seat
gravity amplifier head
upper deck
lower deck
maximum angle of 'lens' effect
rings
extent of hull structured as metallized waveguide
gravity wave guides (focus ring stacks)
millimeter electromagnetic waves pulsed THROUGH the shell casing

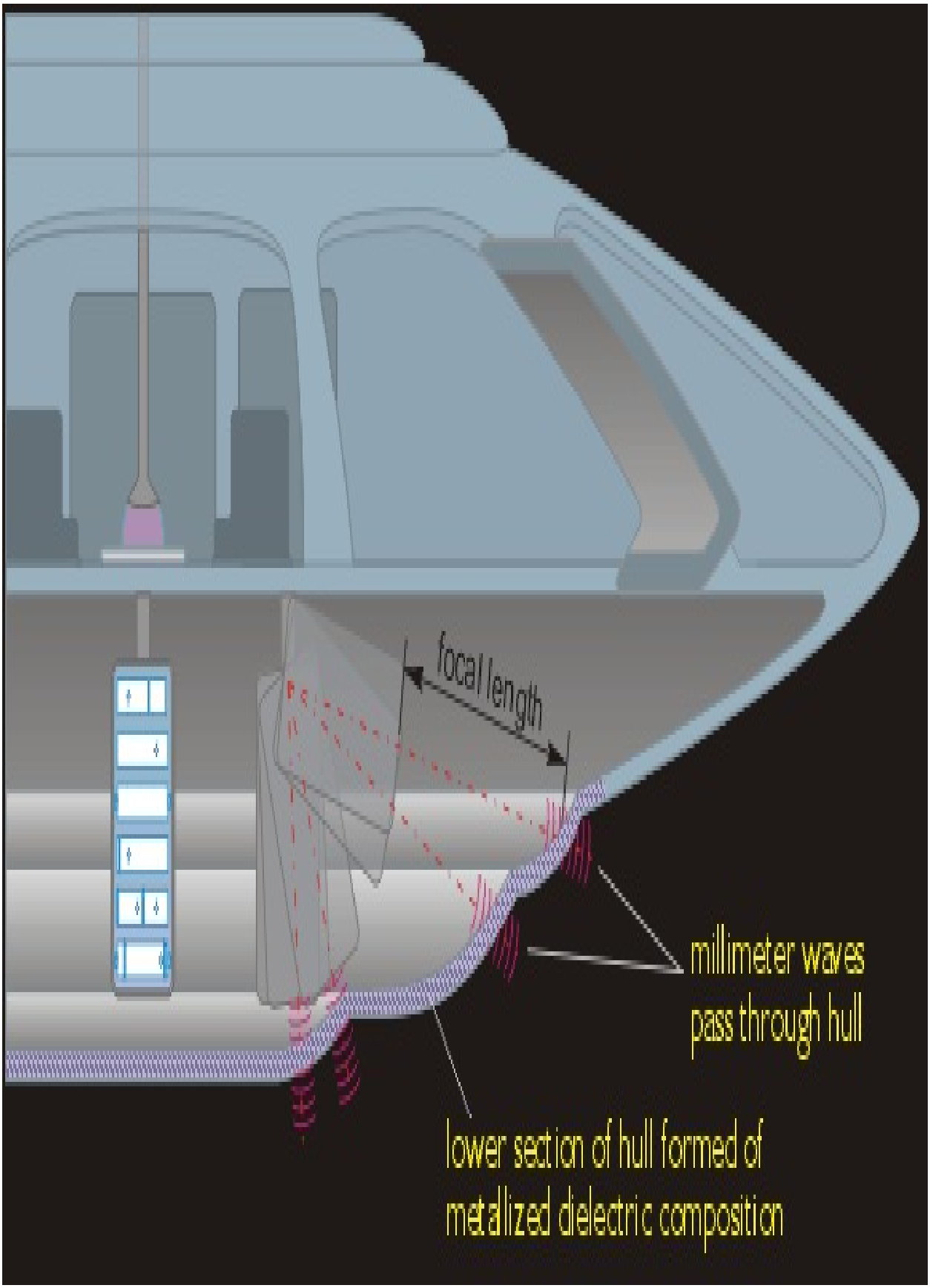
Note: The term used in the above illustration collocated structure is one I have coined and refers to Lazar's comment about there being no joints or sharp edges in the metal structure of the craft he worked on. Almost as if the whole craft was molded together in one piece - a factor of UFO construction reiterated in the notes made by Lt. Col. Philip Corso about the Roswell craft he saw in 1947 where Corso says, "There were no seams on the UFO craft, or joint lines, rivets or weld joints." This "alien" technology is again mentioned in David Adair's Area 51 interview and is something currently undergoing much research through NASA and the Georgia Institute of Technology in the U.S.

Lazar has implied THE HULL OF THE CRAFT COULD BE USED AS A LENS for focusing the electromagnetic waves. Because with radio waves of very short wavelength it has long been established that they behave somewhat like lightwaves, in that they have what is termed "optical properties" meaning that these waves can be bent or flattened by a suitably constructed "lens." Such a lens for a radio micro-wave is made not of glass but of metallized plates inter-spaced certain distances apart, which in this case would equate to around 10 - 50 mm apart. In this way the hull could be used as a very efficient waveguide, not merely to focus the beams but more advantageously to regulate their shape or to give a predetermined delay between one beam and another.



plano-concave E-plane metalised 'lens'

This is how it could be done: Whereas normal dielectrics have microscopic particles and interfaces, the “artificial dielectric” can be made to have metal strips (or rods or spheres) of macroscopic size constructed into it in the form of a lattice. With this technique comes the added advantage that the strips or particles can be aligned to the orientation of the required electric fields. Of the two main types of structured “metallic lens” the M-plane alignment retards the em wave, and the E-plane alignment accelerates the wave (in the E-plane structure the metal strips are parallel to the plane of the electric field of the wave - as shown in the figure above). Further, if the spacing between these parallel strips or plates is exactly one-half wavelength the wave is greatly accelerated. A honeycomb structure in the artificial “metal” would be ideal for this purpose.


focal length
millimeter waves
pass through hull
lower section of hull formed of
metallized dielectric composition

If you look at the figure, above, you will see three sections of the bottom of the hull, each having their own unique curvature. Each of these curved sections are uniquely curved because they have different spacing from the wave generators, resulting in a different “focal length” (to use a photographic term) for the wave propagation. At different focal lengths, the wave’s shape will be different as it enters the dielectric waveguide lens. The resultant wave produced by that lens-waveguide, when that wave passes through it, will also be different. Couple to this the fact that for every different angle that the waves pass through the dielectric hull a different effect of refraction will occur to the wave. Consider next that if this craft uses the two outer generators to focus their two microwave-beams at some finite point in the distance, it would follow that to approach that same point in space, the two beams will have traversed through a different thickness of the dielectric lens, at a different angle, meaning that the two beams will be shaped slightly differently. If, then, it can be controlled how the two waves are shaped, then it will also be possible to control their constructive and destructive interference pattern - and hence the strength or weakness of the electric field at the area where the two beams approach each other. And as you already know the stronger the electric field the stronger the repulsion - the stronger the acceleration.

The above Bob Lazar quotes are taken from “Alien Contact” by Timothy Good (1993) page 183 and page 181, respectively.

The quote below was taken from an old webpage of Bob Lazar’s - and for more detailed information see his Reactor and Microwave Analogy webpage if you can.

“The disc is one of nine, given to the American government in an ‘exchange’ program in the early 1970’s. The makers of the craft and providers of the fuel were from the Zeta Reticuli star system. What we exchanged for the technology is not known. A back engineering program began in 1979 of the remaining hardware and technology.”

5.0 Human Built Anti-Gravity Ships

There are a number of types of ships which have been built on Earth in the past and in the present which might be using some type of anti-gravity as a motive force. In this chapter I've tried to cover most of them.

5.1 Indian Vimanas

The Hindu Vedas are packed with fantastic stories about the gods, their powers, and epic battles that supposedly took place long ago. Their sagas are widely perceived to be mythological stories that were created to be taken as allegory, much like we tell our children fables, so they might glean useful life lessons to apply down the road. These Hindu myths talk of noble Gods who fight off wicked forces, flying craft called Vimanas, and … nuclear war? Are we sure these were just allegories?

Vimana Technology

The Vimana aircraft that are described in ancient Hindu Sanskrit texts are flying machines of varying degrees. The word Vimana translates to “having been measured out” or “traversing,” and were machines piloted by the gods. Much like the chariots of biblical texts, most notably the one seen in Ezekiel’s vision of the wheel, these flying craft came in all shapes and sizes and could travel at different speeds and distances. Some were land and seafaring vehicles, while others flew, sometimes all the way to the moon or further.

The most well-known documentation of the ancient Vimana flying machines comes from the Vaimānika Śāstra, an early 20th century translation of many accounts of Vimana technology found in ancient Vedic scriptures. It details drawings of a range of crafts, including the sources of fuel used to power them, although some can be confusing. The translations talk of certain elements and minerals we are familiar with, like mica, quicksilver and mercury, but also mentions strange liquids referred to as honey, which may have been an unknown substance with a similar viscosity or appearance to a bee’s nectar. (Mercury vapor is also supposed to have been used for anti-gravity propulsion in the modern TR-3B aircraft.)

On top of every Hindu temple or pyramid, one can find a Vimana, and often they are rounded, saucer-like objects, which certain theorists believe were the vehicles of extraterrestrials. Erich von Däniken points out the modern sightings that created our perception of UFOs look very similar to the Vimanas of ancient India.

Von Däniken also points out that the depiction of Shiva flying on his bird,

Garuda, could easily have been a primitive description of an airplane or spacecraft. Garuda was known for dropping bombs, flying to the moon, and bringing Shiva to different locations throughout the solar system. In trying to explain this sight to future generations, the elders' story of a "god" flying around on a "giant bird" or "bird-like" craft might sound ridiculous and be considered merely mythological to those who may have never witnessed it.

When we look closer at these Vimanas, the descriptions of the sounds they made and the way they looked when they took off begin to resemble jet propulsion more and more. One translation of a passage in the Vedic Mahabharata describes a Vimana.

"The Vimana had all necessary equipment. It could not be conquered by the gods or demons. And it radiated light and reverberated with a deep rumbling sound. Its beauty captivated the minds of all who beheld it. Visvakarma, the lord of its design and construction, had created it by the power of his austerities, and its outline, like that of the sun, could not be easily delineated."

The passages speak of Krishna's cohort and epic hero of the Baghavad Gita, Arjuna, describing a trip he took in a Vimana into the heavens, where he saw thousands of airborne chariots and another massive Vimana that was seven stories tall. Much like Enoch's trip taken up in a wheeled chariot, Von Däniken says he believes that this could have been a primitive interpretation of a trip to the mothership, from which the many Vimanas seen on Earth could have originated.

The Drona Parva's Nuclear War

One of the strangest stories of the ancient Hindu Vedas comes from a translation of the Drona Parva, the seventh book in the Mahabharata. The book describes Drona, a warrior appointed as leader of an army in the Kurukshetra War and his ensuing death in that battle. The story fits in with themes seen elsewhere in the Mahabharata, and other ancient texts that detail the difficulties of war, but this particular book provides some descriptions that sound eerily similar to the effects of a nuclear war.

Explosions that level everything, animals screaming and engulfed in flames, pregnant women's babies dying and metal armor melting onto the skins of warriors who wear them, all sound like the result of nuclear blast. It mentions birds falling from the sky, due to a single projectile charged with all the power of the universe, as bright as a thousand suns.

"We beheld in the sky what appeared to us to be a mass of scarlet cloud resembling the fierce flames of a blazing fire. From that mass many blazing missiles flashed, and tremendous roars, like the noise of a thousand drums beaten at once. And from it fell many weapons winged with gold and thousands of thunderbolts, with loud explosions, and many hundreds of fiery wheels,"

Were these scarlet clouds resembling blazing fires and the subsequent death and destruction in the ancient scriptures describing the effects of a nuclear fallout? The primitive technology of the time couldn't have been exposed to radiation of any sort, though the descriptions of pregnant mother's babies dying sounds very much like the effects of radiation exposure.

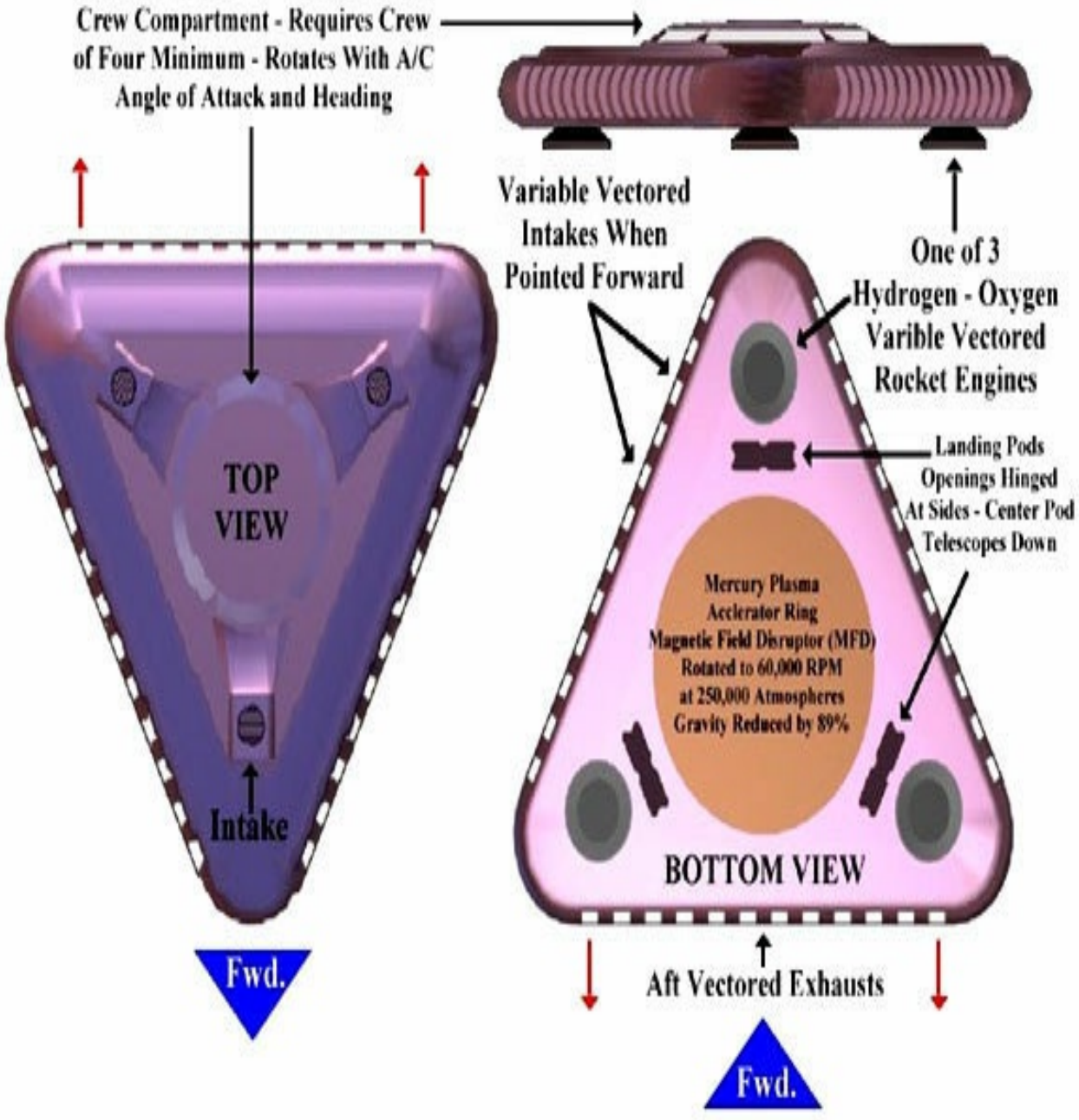
After we developed the atomic bomb that was dropped on Hiroshima and Nagasaki, J. Robert Oppenheimer even quoted the Baghavad Gita saying, “Now I am become death, the destroyer of worlds.” Oddly enough, Oppenheimer, who developed the bomb, was also a scholar of Sanskrit, and some have compared his story to that of Arjuna in the Bhagavad Gita. Arjuna must be convinced to fight in a battle he does not want to take part in due to a moral dilemma, which some have compared to Oppenheimer’s hesitance in developing the atomic bomb.

5.2 TR-3B Triangular Craft

The TR-3B is a triangular aircraft with three propulsion rockets at each of the three corners. Many pictures and videos have been snapped of this craft around the world. It seems to be another top secret craft of the United States. I also put the existence of this craft at over 99% since it has been seen over so much of the world.

It was first mentioned by Edgar Fouche who has described everything which is known publically about this craft. He claims that there is a mercury vapor being accelerated and rotated in a torus circle inside the perimeter of the triangular craft which reduces gravity on it by over 90%. This allows it to achieve maneuvers we would call impossible such as shooting from rest into motion of several thousand miles per hour and making incredibly sharp turns. This would be possible for a craft with only 10% actual effective mass.

USAF Top Secret Nuclear Powered Flying Triangle - The TR-3B


Crew Compartment - Requires Crew of Four Minimum - Rotates With A/C Angle of Attack and Heading
Variable Vectored Intakes When Pointed Forward
One of 3 Hydrogen - Oxygen Varible Vectored Rocket Engines
Landing Pods Openings Hinged At Sides - Center Pod Telescopes Down
TOP VIEW
Intake
Fwd.
Mercury Plasma Accelerator Ring Magnetic Field Disruptor (MFD) Rotated to 60,000 RPM at 250,000 Atmospheres Gravity Reduced by 89%
BOTTOM VIEW
Aft Vectored Exhausts
Fwd.

5.2.1 TR-3B Anti-Gravity Patent:

If the below patent is connected to the TR-3B then it is definitely an anti-gravity ship of human design.

(19) United States
(12) Patent Application Publication
St. Clair

(10) Pub. No.: US 2006/0145019 A1
(43) Pub. Date: Jul. 6, 2006

(54) TRIANGULAR SHAPED KITE

(76) Inventor: John Quincy St. Clair, San Clara, PA (US)

Correspondence Address:
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52 KINGS COURT 4A
KINGSTON, PA 18704 US

(21) Appl. No.: 11/027,083

(22) Filed: Dec. 30, 2004

Publication Classification

(51) Int. Cl.
B64C 31/06 (2006.01)
(52) U.S. Cl. 244/153

(57) ABSTRACT

A [illegible] kite, [illegible] with [illegible] wherein [illegible] and [illegible] are [illegible] to [illegible] the [illegible] kite [illegible] and [illegible] the [illegible] kite [illegible] and [illegible] the [illegible] kite [illegible] and

ABSTRACT

A spacecraft having a triangular hull with vertical electro

static line charges on each corner that produce a horizontal electric field parallel to the sides of the hull. This field, interacting with a plane wave emitted by antennas on the side of the hull, generates a force per Volume combining both lift and propulsion.

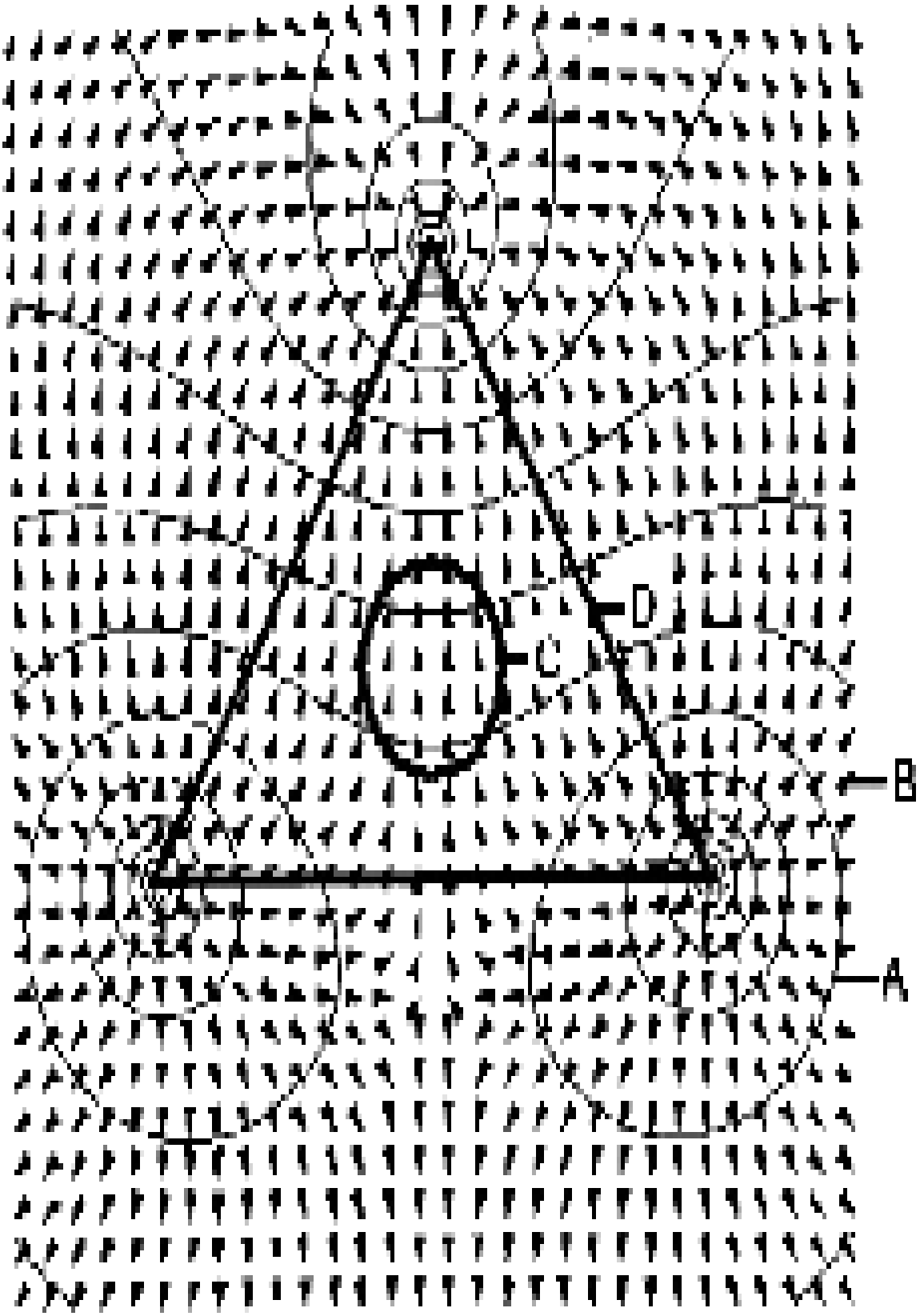
BRIEF SUMMARY OF THE INVENTION

0001. This invention is a spacecraft having a triangular

hull with vertical electrostatic line charges on each corner.

The line charges create a horizontal electric field that,

together with a plane wave emitted by antennas on the side of the hull, generates a force per Volume providing a unique combination of both lift and propulsion.


D
C
B
A

5.3 Dr. Richard Boylan’s list of US Anti-Gravity ships

Richard Boylan, Ph.D. is an internationally-noted researcher of UFOs and Star Visitors and of transformed-human Star Kids and Star Seed adults. He is a Ph.D. behavioral scientist, star-cultures anthropologist, researcher, and university Associate Professor of Psychology (emeritus).

Following is Dr. Richard Boylan’s list of twelve existing anti-gravity spacecraft:

1) The B-2 Stealth Bomber is manufactured by Northrop-Grumman. The Air Force describes it as a low-observable, strategic, long-range heavy bomber capable of penetrating sophisticated and dense air-defense shields. The Stealth Bomber has navigation and guidance systems directed by a classified Artificial Intelligence (AI) program. This AI is exotic, involving the connecting together PCR-cloned copies of extraterrestrial brain tissue with advanced integrated circuits to fashion hybrid sentient “neuro chips”. The B-2 gets extra lift in-flight by the turning on of electro-gravitic fields along its wings and fuselage to considerably neutralize the pull of gravity. Now you begin to see why the U.S.'s Northrop B-2s cost about a billion dollars each.

2) The F-22 Raptor advanced Stealth Fighter is built by a joint effort of the Lockheed-Martin Skunk Works and Boeing’s Phantom Works. In crude imitation of extraterrestrial starcraft, the guidance system of this F-22 aircraft incorporates special Artificial Intelligence (AI), meaning that cloned nerve pathways patterned on Star Visitor brain tissues are incorporated into the

semi-sentient and semi-autonomously-functioning guidance system integrated with the aircraft. In addition, the F-22 has antigravity weight-reduction capability, which is exercised selectively by the pilot who is in mental connection with the AI guidance system, which activates the antigravity field generation as needed in coordination with the F-22's conventional jet engine thrust to effect the overall maneuvering of the F-22 Raptor. I have personally witnessed a F-22 pull up and hover vertically on its tail in mid-air, dance slowly, and gently rotate about on its vertical axis with little regard for the pull of gravity!

3) The “next generation” F-35 Lightning II advanced Stealth Fighter is built by Lockheed-Martin, Northrop-Grumman and BAE. The F-35 similarly incorporates quasi-sentient Artificial Intelligence and antigravity weight-reduction propulsion (back-engineered stolen Star Visitor technologies) in addition to its jet thrust.

4) The Aurora is a moderate-sized spacefaring vehicle. The late National Security Council scientist Dr. Michael Wolf(4) of MJ-12 [under cover as NSC's "Special Studies Group"] has stated that the Aurora can operate on both conventional-fuel and reduced-gravity field-propulsion modes. Dr. Wolf further stated that the Aurora can travel to the Moon. Wolf had also disclosed to me that the U.S. has a small manned station on the Moon, and a tiny observation post on Mars. Thus I doubt that Dr. Wolf would characterize the Aurora as space-operational unless it was a vessel already used in making such trips. He disclosed additionally that the Aurora operates out of Area 51, (Groom Dry Lake Air Force Station), at the northeast corner of the Nellis AFB Range, north of Las Vegas, Nevada.

5) The Lockheed-Martin X-33A. Lockheed openly acknowledges its rocket-engine X-33 [no A] 'prototype', a single-stage-to-orbit reusable aerospace

vehicle called the National Space Plane. Lockheed's other space plane, the X-33A, incorporates antigravity technology and is kept secret. Lockheed-Martin does not say too much about its conventional winged delta-shape X-33 VentureStar except to say that 'we are in the process of building it.' At that stage of development for its public-program Space Plane, it is clear that Lockheed-Martin has already long since secretly built its unacknowledged, advanced military operational antigravity version, which I have dubbed the X-33A. (The 'A' suffix stands for antigravity.) Colonel Donald Ware, USAF (ret.) told me that he had recently learned from a three-star General that the "VentureStar X-33" has an electrogravitics antigravity system on board(6.). He was really referring to the unacknowledged military antigravity version, the X-33 A, which indeed has electrogravitics on board.

6) The Lockheed X-22A is a two-man antigravity discoid craft. The late Colonel Steve Wilson, USAF stated that military astronauts trained at a secret aerospace academy adjacent to but separate and undergrounded from the regular Air Force Academy at Colorado Springs, CO. These military astronauts then operate out of Beale and Vandenberg Air Force Bases, Northern California. From those bases, these military astronauts regularly fly trans-atmospherically and out into deep space (7). The late Colonel Steve Wilson confirmed that one of the aerospace craft these astronauts use is the X-22A.

Another informant told me that the Lockheed X-22A antigravity disc is capable of achieving optical as well as radar invisibility.

Recently I also heard from an Army engineer, formerly TDY'ed to NASA, who shall remain unnamed at his request. He also confirmed that Lockheed had made the X-22A, the two-man antigravity disc which I had seen test-flown in a canyon adjacent to the main Area 51 operations zone. He

explained why I had seen the X-22A so gingerly flown during that test flight. He said that the original X-22A had had a standard altimeter hard-wired into it, but that such an instrument would give faulty readings in the craft's antigravity field (which bends space-time.) He had recommended that they instead use a gradiometer, which would function better. Apparently his suggestion was finally taken up, since in more recent years I have seen the X-22As flown more smoothly and confidently at high altitudes over and near Area 51.

7) The Nautilus is another space-faring craft, a secret military vehicle which operates by magnetic pulsing. It operates clandestinely out of Vandenberg Air Force Base, California. It makes trips several times a week up to the joint-nations secret military-intelligence space station. [This undeclared and cloaked space station has been in deep space for the past forty years, manned by U.S., Russian, British, Canadian, Austrian, Australian, Brazilian, and other military astronauts.] The Nautilus also is used for superfast surveillance operations utilizing its ability to penetrate target-country airspace from above entering from deep space, a direction not usually expected. It is manufactured jointly by Boeing's Phantom Works (Nellis Air Force Range, Nevada) and the Airbus Industries Anglo-French consortium. During travel to Washington State several years ago, I had a conversation with a former Boeing executive who worked in Boeing's Phantom Works black projects division, (equivalent to Lockheed's Skunk Works). The executive confirmed what I had earlier learned from an intelligence insider: that Boeing had teamed up with Europe's Airbus Industrie to manufacture the Nautilus.

8) The TR3-A 'Pumpkinseed' is a super-fast air vehicle. The 'Pumpkinseed' nickname is a reference to its thin oval airframe whose contours resemble that seed. It is the craft identified as using Pulse-Detonation Wave Engine (PDWE) technology for propulsion in a sub-hypersonic regime. The Pumpkinseed then uses antigravity technology for reducing the vehicle's mass and for field propulsion at higher altitude and speed levels. As air breathers,

these Pulse Detonation Wave Engines can propel a hypersonic aircraft towards Mach 10 at an altitude in excess of 180,000 feet. When used to power an trans-atmospheric vehicle, the same PDWEs are capable of lifting the craft to the edge of space when switched to rocket mode.

9) The TR3-B 'Astra' is a large triangular anti-gravity craft within the secret U.S. spacefaring fleet. Black-projects defense industry insider Edgar Rothschild Fouche' wrote about the existence of the TR3-B in his book Alien Rapture. The TR3-B does not depend solely or principally on its hydrogen-oxygen rockets. It is a highly-reduced-gravity aerospace craft manufactured in secret "black programs" by Boeing. The reduced-gravity field it produces reduces the vehicle's weight by about 90% so that very little thrust is required to either keep it aloft or to propel it at speeds of Mach 9 or higher.

The TR-3B vehicle's outer coating is electrochemical-reactive and changes with electrical radio-frequency radar stimulation, and can change reflectiveness, radar absorptiveness, and color. This is also the first US vehicle to use quasi-crystals in the vehicle's skin. This polymer skin, when used in conjunction with the TR-3B's Electronic Counter Measures and Electronic Counter-Countermeasures (ECCM), can make the vehicle look like a small aircraft, or a flying cylinder - or even trick radar receivers into falsely detecting a variety of aircraft, no aircraft, or several aircraft at various locations!

A circular plasma-filled accelerator ring called the Magnetic Field Disrupter [MFD] surrounds the rotable crew compartment and is far ahead of any imaginable technology. Sandia and Livermore National laboratories developed the reverse-engineered MFD technology. The mercury-based plasma is pressurized at 250,000 atmospheres at a temperature of 150 degrees Kelvin, and accelerated to 50,000 rpm to create a super-conductive charged

plasma with resulting gravity-disruption [reduction of almost all of the pull of gravity and effects of inertia].

The MFD generates a magnetic-vortex field which disrupts or neutralizes the effects of gravity by 89 percent on a mass within proximity. The MFD creates a disruption of the Earth's gravitational field upon the mass within the circular accelerator. The mass of the circular accelerator and all mass within the accelerator, such as the crew capsule, avionics, MFD systems, fuels, crew environmental systems, and the nuclear reactor, are reduced by 89%. The current MFD in the TR-3B craft causes the effect of making the vehicle extremely light, and able to outperform and outmaneuver any craft yet constructed - except of course those back-engineered total-antigravity craft, which the government does not admit exist.

The TR-3B is a high-altitude, stealth reconnaissance platform with an indefinite loiter time. Once it gets to operational altitude, it doesn't take much propulsion to maintain altitude. With the vehicle mass reduced by 89%, the craft can travel at Mach 9 vertically or horizontally. My sources say the performance is limited only the stresses that the human pilots can endure. Such stresses are greatly reduced, considering that along with the 89% reduction in mass, the inertial G (gravity) forces are also reduced by 89%. The crew of the TR-3B can comfortably take up to 40Gs.

The TR-3Bs propulsion is provided by three multimode thrusters mounted at each bottom corner of the triangular platform. The TR-3 is a sub-Mach 9 vehicle until it reaches altitudes above 120,000 feet - then above atmospheric drag it can go much faster!

The reactor heats the liquid hydrogen and injects liquid oxygen into the supersonic nozzle, so that the hydrogen burns concurrently in the liquid-oxygen afterburner. The multimode propulsion system can operate in the atmosphere with lift from the Magnetic Field Disrupter powered by the nuclear reactor and propulsion by burning hydrogen, and in orbit it uses the combined hydrogen/oxygen propulsion. The engines are reportedly built by Rockwell.

10) The Northrop antigravity disc (designation unknown) is manufactured by Northrop Grumman's Advanced Concepts and Technologies Division. I have dubbed it the 'Great Pumpkin' from its brilliant ruddy golden-orangish glow. I first saw these craft operationally test-flown in 1992 above the Groom Range ridge line at Area 51, Nevada. Later I saw the same intensely burning-bright orange-gold craft that I had seen above Areas 51 being test-flown sixty miles north of Los Angeles in the Tehachapi Mountains northwest of Edwards Air Force Base.

There Northrop has its secret saucer manufacturing works buried deep within Tehachapi Mountain. I saw the same intensely burning-bright orange-gold craft test-flown above Northrop's ridge-top test bed there as I had seen flown above Area 51(11). When energized, these discs emit their characteristic intense glow. It is reasonable to assume that this is due to strong ionization, and that electrogravitics is the methodology of their field propulsion.

11) The XH-75D (or XH Shark) antigravity helicopter is manufactured by Teledyne Ryan Aeronautical Corporation of San Diego (now part of Northrop-Grumman). USAF Colonel Steve Wilson reported that many of these XH-75Ds were assigned to the Delta/National Reconnaissance Organization Division which retrieves downed UFOs. Rogue elements within that Division, controlled by the Cabal, are also implicated in mutilating cattle

as a psychological warfare program on the American public to try to get citizens to fear and hate extraterrestrials through assuming that aliens in antigravity craft are the ones cutting up their cattle.

The XH-75D is also obtained and used by the Cabal for MILABS kidnappings of innocent civilians, who are drugged, hypnotized, and flown off in these silent antigravity craft and given the impression that they are aboard a "flying saucer". Colonel Wilson USAF leaked the existence of the XH-75D “Shark”.

12) The Northrop Quantum Teleportation Disc. Are the above antigravity-field propulsion craft the current state-of-the-art in advanced aerospace craft? No. There have been advances beyond “mere” antigravity field propulsion. Quantum physics is now being used to update a variety of aerospace craft and their guidance systems.

On a Sept. 16, 2005 field trip to the boundary of Area 51, during a middle-of-the-night observation, I saw first one, then another, and finally six brightly-lit objects suddenly appear at approximately 1000' (305 meters) height above the desert floor. The intensely-glowing, ruddy, golden-orangish ionization field surrounding these craft appeared identical to the field around the Northrop antigravity disc. But in the 13 years since I had last observed the Northrop discs above Area 51, and at their Tehachapi Mountains manufacturing site, considerable progress has been made.

As of 1992 a Northrop antigravity disc could slowly rose vertically from its flight pad and gradually reached flight altitude. But in 2005, the Northrop

Quantum Teleportation Discs are able to instantly wink out (depart) from their flight pad and suddenly appear at flight altitude without any visible ascent. And it is not a matter of their ionization field having been turned off during ascent for stealth purposes. The ionization field accompanies the electrogravitic field propulsion. If the ionization were turned off, the craft would have fallen from the sky. Rather what apparently is going on is that the Northrop engineers have incorporated quantum-physics principles into the propulsion. Simply stated, Northrop appears to have harnessed Quantum Entanglement to achieve Quantum Teleportation. To the observer, the craft appears to simply cease to exist on the flight pad and instantly begin to exist at say 3000 feet altitude. If the interpretation of this observation is correct, then there exists an 12th entry in the U.S. antigravity arsenal: the Northrop Quantum Teleportation Disc.

If the black-budget scientists keep advancing along these lines, we could foresee the day when a fleet of Air Force craft suddenly “wink out of view” on an air base runway and instantly appear at 35,000 feet altitude over a target city halfway around the globe, using quantum principles of Non-Locality and Entanglement. Surprise!

6.0 The United States incredible technology

To give you an idea of how far advanced the United States is in aerospace technology above what the world thinks, some quotes make interesting reading:

Ben Rich was the second director of the Lockheed Skunkworks which built many classified planes including the SR-71, the U-2, and F117 Stealth fighter. Here are some comments he made:

“Ben Rich told me twice before he died: ‘We have things at Area 51 that you and the best minds in the world won’t even be able to conceive that we have for 30 or 40 years, and won’t be made public for another 50.” A friend of mine at Lockheed told me: “We have things in the Nevada desert that are alien to your way of thinking far beyond anything you see on Star Trek.”

Another Master Sergeant Interview:

A master sergeant was interviewed who had been at Groom Lake three different times as an Air Force safety specialist. ... At first he was real nervous, but when he warmed up he told me: ‘We have things that would make George Lucas envious.’ I know one retired guy who worked at Lockheed for 30 years, most of the time at Area 51; he’s very proud of what he’s done, and he wants the story of the place to be told so that his grandchildren will have some idea of what he was involved in. In the summer of ‘86 I asked him if he believes in UFOs. He said, ‘They absolutely, positively do exist!’ I said, ‘Can you expand on that?’ And he said, ‘No, I’ve said too much as it is.’ “

Another quote by Ben Rich:

As Ben Rich said, who developed the stealth aircraft back in 1993 in the presence of two friends of mine: "We now have the technology to go to the stars". And that was back in 1993.' When Mr. Good was asked to elaborate on where this technology came from, he replied: 'Alien crafts [sic]. The study of alien crafts (craft) that have been recovered and by liaising with actual aliens who have helped us develop this technology.

The point of these quotes is that the United States government is keeping aerospace and space technology top secret which would give us a huge military advantage either in the atmosphere or in orbit, and even out in the Solar System.

Given that the United States public military budget already equals that of the rest of the worlds combined, the U.S. has an incredible technical and qualitative edge in technologies for war.

Here is a picture of Ben Rich:

The United States already dominates the planet Earth. So what else would we use this super-secret technology to do?

It would explain the development of a Secret Space Force using the ships and technologies we have already developed to defend Earth from Aliens.

7.0 Summary of Anti-Gravity and Alien Technology

It is clear that anti-gravity research in the United States and the Government goes back at least 70 and maybe 100 years.

Some type of anti-gravity technology became available to the United States soon after World War Two. Whether it was a result of Nazi research on the Bell, the alien ship found at Roswell, or Townsend-Brown anti-gravitics—I really don't know the truth. But anti-gravity technology clearly exists and has been the subject of U.S. secret research since then.

It looks like governments and militaries have likely had a working relationship with aliens since at least the late 1940s. Some trips by humans in their spacecraft have probably resulted.

Anti-Gravity and Zero Point technologies are being withheld from the public for a couple of reasons. One main reason is potential disruption of large industries like the worldwide oil and gas industry. Another reason is that government authorities don't want to panic the general population about the existence of aliens who visit our planet too.

Assuming we have had anti-gravity ships since the early 1960s, then it would be a natural growth path to also assume we have military bases on the moon and possibly Mars.

So what should we conclude about all of the claims and counter claims about

aliens, UFOs, secret anti-gravity, and secrete zero point technologies? This field is full of conspiracy theories and lots of contradictory information after all. There is probably an incredible amount of disinformation we are dealing with too.

The research sited in this book shows that there have been huge research expenditures on anti-gravity for a long time and probably spaceships and other aircraft which have benefited from this technology.

The good news about all of this is that we have an exciting future to look forward to. With anti-gravity and other propulsion technologies we will be able to settle the Solar System and travel to the stars. We will also soon have interstellar commerce and relationships with many alien races.

All the Best,

Martin K. Ettington

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